THE RAILWAY GAZETTE

A Journal of Management, Engineering and Operation

INCORPORATING

Railway Engineer · TRANSPORT · The Railway News

The Railway Times · Herapath's Railway Journal · RAILWAY RECORD.

RAILWAYS ILLUSTRATED · ESTABLISHED 1835 · Railway Official Gazette

33, TOTHILL STREET, WESTMINSTER, LONDON, S.W.1

Telephone: WHitehall 9233 (12 lines) *Telegrams: "Trazette, Parl London"*

BRANCH OFFICES

GLASGOW: 87, Union Street . . . . . *Central 4646*

NEWCASTLE-ON-TYNE: 21, Mosley Street . . *Newcastle-on-Tyne 22239*

MANCHESTER: Century House, St. Peter's Square . . . *Central 3101*

BIRMINGHAM: 81, Edmund Street . . . . . *Central 3049*

LEEDS: 70, Albion Street . . . . . *Leeds 27174*

Annual subscription £3 10s. 0d. post free. Single copies, One shilling & sixpence
Registered at the G.P.O. as a newspaper. Entered as second-class matter in U.S.A.

Vol. 94] FRIDAY, MARCH 16, 1951 [No. 11

CONTENTS

	PAGE
Editorial Notes	285
Joint Appeal to Railwaymen	287
The Search for Railway Economics	287
British Transport Commission Traffic Receipts	288
Letters to the Editor	290
The Scrap Heap	291
Overseas Railway Affairs	292
Railway Freight Rates in U.S.A.	294
British Railways Standard Coaches	295
4-6-2 Locomotives for Queensland	299
Personal	303
Institution of Locomotive Engineers Annual Luncheon	305
£300,000 Improvement Scheme for Euston	307

Finding the Money

NEWS that the British Transport Commission has made to the Minister of Transport a submission on the problem of increasing its revenue, largely to raise the £30 million required to meet the recent railway wage increases and higher costs of materials, leads to speculation how the extra money is to be found. Given the urgency of the B.T.C. financial position, and the long time taken to put into effect any transport integration scheme, a stop-gap presumably is sought. It seems unlikely that, pending integration, the charges of any of the B.T.C. undertakings other than British Railways will be increased. The raising of road haulage and B.T.C. road passenger transport charges involves complex issues of charges within those two industries, in which the Commission has no monopoly. As to London Transport, despite the 7½ per cent. wage increase to its railway employees granted last week, which may add £500,000 a year to its outgoings, the London Charges Scheme has hardly had time to take effect. Wholesale increases in shipping and docks and inland waterways rates would certainly result in amounts negligible in relation to the total requirements, and the spread of the area of disturbance in the transport world, with consequent risk of inflation, might not be worth while. It seems probable, bearing in mind the desirability of making some attempt to make British Railways self-supporting, and also the precedent of last year's 16 2/3 per cent. rate advance, that increases in railway charges only will be sought. There are many factors involved, loss of traffic being not the least. An increase in passenger fares would drive traffic to the roads. Although an increase in charges for "obligatory" passenger travel, as in season-ticket rates (receipts for which are only 15 per cent. of all passenger receipts) might produce a temporary increase in revenue, there would be loss of other passenger traffic. As regards freight rates, the increases of last May were expected to produce £26 million annually—allowing for loss of traffic. This loss occurred in merchandise traffic. Coal and mineral traffics, however, which together are 25 per cent. of the Commission's receipts, cannot be lost to other means of transport, and as it is in the uneconomic rates for these that British Railways subsidise industry, an increase in them seems to be the only solution.

New C.R.O. for London Midland Region

THE appointment of Mr. J. W. Watkins, recorded in our last week's issue, to succeed Mr. John Elliot as Chief Regional Officer of the London Midland Region, should prove both a good and a popular move on several grounds. The vacancy was caused by the elevation of Mr. Elliot to the Chairmanship of the Railway Executive and some had expected that the position would be filled by one of the other Chief Regional Officers, with a consequent re-shuffling in the various regions. We have never disguised our scepticism of the value of inter-regional transfers of senior railway officers. Is it too much to hope that the appointment of Mr. Watkins, who has had a distinguished career since he joined the Midland Railway in 1905, marks an end to the practice and is one of the first fruits of Mr. Elliot's *régime*? Mr. Watkins is a popular personality and his appointment brings to the ranks of the Chief Regional Officers one whose long and intimate experience with the operating problems of his Region must be valuable. He is also the first purely operating man to become a C.R.O., and that in itself is not without its value as a tribute to an essential section of the railway organisation of which, all too often, little is heard.

Compulsory Purchase of G.N.R.(I.)

THE Governments of Northern Ireland and the Republic of Ireland have decided on compulsory purchase of the Great Northern Railway (Ireland). The decision was conveyed to the directors in Belfast on March 12 after Ministers of the two countries had met for further discussions. A statement issued at the close of the talks said that after the rejection of their joint offer, the two Governments proposed "to introduce in their Parliaments parellel measures with the object of acquiring the undertaking at a price of £3,900,000. This figure is based on the average of the prices of the stocks of the company for the three years 1948, 1949, and 1950." In an editorial in our March 2 issue we expressed the hope that the valuation for acquisition would be assessed by an independent arbiter, but the Governments are apparently adamant in their decision to base it on stock exchange quotations. The stockholders, at the meeting which they are expected to hold today, will doubtless take their cue from Mr. F. Storey, Chairman of their Protection Association, who described the decision as "ridiculous and absurd," but in the light of the proposed legislation any future action, to be useful, will have to be taken by members of the two Parliaments.

Institution of Locomotive Engineers

THE annual luncheon of the Institution of Locomotive Engineers establishes a record for attendance each year. At last Friday's function 593 persons were present, an increase of 30 on the total 12 months earlier. Mr. R. A. Riddles, who was in the chair, is the first Member of the Railway Executive to be President of the Institution and the guests represented a galaxy of home and overseas talent. The Minister of Transport made it clear that he was no pessimist as to the fuure of railways and he dwelt on the benefits which might accrue from further urban electrification. Mr. Riddles pointed out that the question of alternative sources of motive power was mainly one of economics; Sir Archibald Boyd followed this up by saying

XUM

that British manufacturers were aware of the difficulties facing those responsible for the operation of transport systems both at home and overseas. Manufacurers would do all in their power to help by developments which would cheapen the cost of production. They would endeavour to assist those running transport to give more efficient and more economic services. The Chairman of the Railway Executive, Mr. John Elliot, introduced a lighter note with a happily-phrased humorous response on behalf of the guests.

Railway Ships and Shipbuilders

DESPITE variations in the lines of the old railway companies, much standardisation of British Railways rolling stock has been possible since nationalisation. Such, however, is not the case with the steamship services of British Railways and their predecessors, which range from the Clyde to the Channel, and from the Irish to the North Sea. The variations precluding standardisation of vessels not only are purely technical, such as depth of water at quays, but also are concerned with traffic, such as the relative amount of cargo and passenger space required, or whether the voyage is long or short. It was therefore natural that in the course of years the several railways had recourse to shipbuilders conversant with their particular requirements. Thus arose the happy association between the Southern Railway, for instance, and William Denny & Bros. Ltd., of Dumbarton, or between the L.N.E.R. and John Brown & Co. Ltd., of Clydebank. After nationalisation indeed the necessity temporarily to transfer vessels from one Region's services to another's merely emphasised the differences in local requirements. It is gratifying to know the intention of the Railway Executive, voiced by one of its Members, General Sir Daril Watson, as related elsewhere in this issue, to perpetuate the links between the Regions and the shipbuilders who have served them so well.

Euston Station Improvement Scheme

ELSEWHERE in this issue are given the details of an improvement scheme which the London Midland Region is to carry out at Euston Station during the next two years at an estimated cost of £300,000. Work on the scheme, which is to begin soon and will be carried out in seven main stages, includes resignalling and a better track layout and longer platforms. There will be provided a new power operated signal box, together with colour light signalling and complete track circuiting, while shunting movements will be controlled by position light dwarf signals, thus eliminating hand signalling and verbal instructions and ensuring that all movements are made under the authority and protection of fixed signals. The existing permanent way is complicated and various factors combined with weight of traffic have inevitably resulted in heavy maintenance in a dense traffic area. The new layout will be much simpler. Euston was not built for the long trains of today, but no major platform improvement was possible until now, because the piers of an overbridge at the north end of the station prevented respacing of the tracks, but the superstructure of the bridge in question has reached the end of its useful life, and powers have been obtained to abandon it.

Double-Deck Passenger Coaches

A PRINCIPAL factor in the recent decision to run ten-coach trains on certain Southern Region electric suburban services, with the resultant expense of lengthening of station platforms, in preference to building further double-deck stock on the lines of the experimental unit described in our November 4, 1949, issue, was the British loading gauge. It was certainly this that necessitated the disadvantages of low headroom on both upper and lower decks and of fixed lights in the upper-deck windows in the experimental set. Given the preference for compartment stock in Southern Region electric suburban services, the compartment design of the double-deck set precludes speedy alighting and entrainment. It is probable, moreover, that combination of such short and frequent station stops with crowded rush-hour trains is not to be found on other suburban lines where modern double-deck stock is used, notably on certain Paris services; modern Continental double-deck stock also is built to a greater loading gauge, with saloons on both decks. Nor does the additional accommodation (some 40 per cent. more than in ordinary compartment suburban stock) in the Southern Region experimental set compensate for its disadvantages.

Standard Passenger Coaches

THE first passenger coaches built to the new standard design by British Railways, 1,189 of which will be finished in 1951, recently have been completed. Coaches of this type, details of which are given elsewhere in this issue, will form Festival of Britain trains, and will be used on holiday expresses later in the year. Twelve different types of coaches are to be built this year, these including first and third class corridor coaches, saloons of the open type with centre gangways, and restaurant and kitchen cars and luggage vans. The new coaches have all-steel bodies and are capable of working over any of the main-line routes in the country. Three-a-side seating is provided in both third and first class corridor coaches. This will involve a loss of passenger capacity which may have its repercussions on some routes. While every effort has been made to produce bright and attractive interiors limitation in capital expenditure and the urgent need to overtake arrears in numbers of passenger vehicles has precluded the adoption of *de luxe* features. This building programme for 1951 represents the first stage. The next stage, now in hand, will cover non-corridor stock for steam and electric services, and new designs are already being prepared for first and third class sleeping cars. The final stage of standardisation will deal with non-passenger carrying vehicles.

Aluminium Sheet Protection for Mississippi Bridge

BECAUSE of the serious corrosion of the galvanised deck plating throughout the great 4¼-mile Huey Long bridge over the Mississippi, the New Orleans Public Belt Railroad has been replacing it by 18 rows of Alclad 4S aluminium sheeting, nine completely protecting each track and the steelwork below it. An adequate system of drainage, also in aluminium, is being provided, and the whole work is being carried out by normal bridge and track labour without special metal working equipment in the field. Removal and replacement of the new sheeting, where essential, is easily and quickly effected by maintenance staff. The work, which should now be completed, is being carried out under and with the minimum delay to traffic. It is remarkable that aluminium sheeting, mainly about $\frac{1}{8}$-in. thick, is considered to provide adequate protection to the sleepers and other timber from fire, and to the steelwork from corrosion, and the ease with which it can be handled and fixed is significant, as is shown in an article elsewhere in this issue.

Locomotives for Queensland Government Railways

AT the present time Vulcan Foundry Limited is building 35 "B18¼" class locomotives for operating on the 3 ft. 6 in. gauge section of the Queensland Government Railways. The locomotives, which are described and illustrated elsewhere in this issue, are a modern version of previous 4-6-2 mixed-traffic engines built by the railway. New features have been embodied in the present design, including, among others, increased piston valve travel, the fitting of Skefko roller bearings on all engines and tender axles and eccentric cranks, and increased tender capacity. Steam distribution is effected by Walschaerts valve gear of a design similar to that on previous engines of the same class, but the cylinders have been re-designed to give improved steam flow through shortened passages, while narrow rings have been substituted for wide rings as fitted to the earlier locomotives. The engines are designed for mixed-traffic working, but will be principally used on passenger traffic. On completion they are being transported fully erected by road to Liverpool for shipment to Brisbane.

Joint Appeal to Railwaymen

THE Railway Executive and the officials of the three railway trades unions are to be congratulated on the joint manifesto which they have issued to British Railways staff informing them of the recent agreements (noted and commented on in our issue of March 2) on wages and on co-operation in seeking efficiency, and asking for full support of railwaymen "in the great tasks which lie ahead." The manifesto, which is given in full elsewhere in this issue, is accompanied by the text of both agreements. It falls therefore into two natural divisions. The first, which deals with the question of increased wages, reminds the staff that "to find the money passengers and senders of goods by rail will be asked to pay more" and that rail users therefore will be the more critical and the more "likely to think twice before using the railway at all." "If their custom is lost" continues the manifesto, "then so much the worse will be the financial position—and the more difficult—for instance, to carry out the many improvements in staff accommodation and amenities which the Railway Executive has in hand or under consideration." That is a trenchant summary of the situation which cannot fail to impress all but the most intransigent railway employees, with its carefully phrased but not exaggerated appeal to enlightened self-interest.

The manifesto deals in its second part with the second agreement between the Executive and the unions, that relating to enhanced efficiency. In view of the recent commencement of its labours by the joint "efficiency committee" set up as a result of this agreement, it was doubtless considered improper, in composing the manifesto, to deal specifically with the many ways in which railwaymen can co-operate. The burden of the appeal is loyal observance by the rank and file of trades unionists or agreements made on their behalf by their leaders, combined with "a realistic long-term outlook"; and emphasis is laid on the extent to which the unions have pledged their help in achieving this.

Much, however, will depend on the recommendations of the "efficiency committee." This body was given something like a blank cheque by the agreement of February 23. As it is composed of both Executive and union representatives, the latter acutely aware how far they are safe to pledge their unions, it is unlikely that it will make any recommendation drastic enough to provoke the opposition of the men. The situation, however, is delicate, and railwaymen's tempers uncertain, as recent events have shown. It would be unreasonable to expect the committee to do more than walk very warily at first.

The Search for Railway Economies

FEW of the advocates of reduction of expenditure by the Railway Executive specify what form those reductions should take, apart from such broad suggestions as integration of transport, closing of unremunerative branch lines, and dismissal of redundant staff combined with better use of manpower. The first measure is one for the British Transport Commission, and it is safe to say that it is progressing as fast as complex circumstances (including rapidly rising costs) allow. Closing of branch lines also is progressing, and if it is not proceeding quickly, this is because it is largely bound up with transport integration, and because each case is considered on its merits. Users of branch lines must be given alternative means of transport; and (quite apart from the complex question of the extent to which a branch, over which traffic to and from the main line passes, pays) closing hitherto has not resulted in very great economies. At all events, the matter is being closely studied by the Railway Executive.

Before passing to staff economies, it must be asked what further savings can be effected. The fact is that economy measures (apart from staff) have been studied by British railway managements for the past thirty years at least, and put into effect wherever they seemed likely to prove effective. In some cases, through misplaced departmental zeal, perhaps, or too rigid budgetary control, as for instance in the depression of the 1930's, economies, as in drastically reduced train services or restricted carriage cleaning or repainting of railway premises, caused complaints from railway users, and public criticism. Indeed it is even now doubtful whether measures of this sort (apart from the present obligatory coal economies) practised by British Railways justify the loss of goodwill they cause; and the only defence of the Treasury ban on new works (which would in due time result in economies) is desperate national necessity, and—rather questionable—the need for the railways to share with other national activities the consequent deprivation of financial resources for development. It is noteworthy, moreover, that the latest report* of the Central Transport Consultative Committee feels "that in view of the importance of railways in the economic structure of the country, special consideration should be given to providing capital and other resources" for modernisation schemes. The Committee makes no specific recommendation for economies other than staff except the closing of branch lines. It did, however, in its report for 1949, make a recommendation in general terms on the reduction of British Transport Commission costs and overheads, and also recommended that the cost of maintaining strategic lines be borne by the Minister of Defence, though this (which was discussed in previous issues of this journal) is not an economy measure as such.

Regarding staff economies, critics of British Railways allege that the staff is too large, and the manpower wastefully used, with too many restrictive practices. To take the latter point first: it is true to say that, by and large, the best possible use until recently was made by managements of available railway manpower within the limits set by the trades unions or by some of their recalcitrant members. The agreement last month with the railway unions, resulting *inter alia* in the new "efficiency committee" which has already started work, has put the matter in hand as far as is possible; further action in effecting economies in manpower user now lies mainly with the rank and file of railwaymen and their leaders. The steps previously taken by the Railway Executive to effect staff economies, and the results achieved, were reviewed in an editorial article in our January 19 issue, which showed some of the many aspects, including restriction of recruitment and use of normal wastage, constantly under review.

As to the question whether British Railways generally are overstaffed, the fact is often forgotten that the railways were built in an age of cheap labour. There is hardly an installation built before 1914 which is not by modern standards wasteful of labour. An example of this is the typical large or medium-sized passenger station, with its multiplicity of platforms each with waiting room and lavatories; many others could be found, though these difficulties are being overcome as far as opportunities for modernisation permit.

Nevertheless, with the staff costs representing some 60 per cent. of British Railways total annual expenses of £300-odd million, some saving here is essential. The difference in the number of railway employees as between 1938 and 1948 is 12½ per cent., accounted for by the shorter working week (44 as against 48 hr.), extended holidays, and increases in work. It has been computed that reversion to the 48-hr. week would result in an eventual saving of 10 per cent. in staff, or, very roughly, £20 million a year. Retrogression in working conditions is to be deprecated, but the situation is desperate, and failure to take prompt and drastic action may result in worse financial conditions and increased unemployment for railwaymen. One solution seems to be reversion to the 48-hr. week (but without abandoning the five-day week principle) which would seem to cause the least possible hardship to the men concerned. Combined with the staff economy measures agreed on by the "efficiency committee," it would save something like two-thirds, or rather less, probably, of the £30 million which must be found this year in respect of British Railways operation, and would reduce the amount to be realised by an undesirable increase in charges.

* Central Transport Consultative Committee for Great Britain. Annual Report for the year ended December 31, 1950. H.M. Stationery Office. Price 6d.

XUM

Burma Railways

THE report for the year ended September 30, 1949, of the Burma Railways covers the first complete official year of Burmese independence, and is largely concerned with the civil unrest prevailing throughout the period under review. The insurgents' main activity was disrupting communications, and the railway came in for its full share of destruction. Bridges were dynamited, stations looted, tracks torn up, and trains ambushed. The workshops at Insein and Myitnge and other large installations were destroyed. Post-war reconstruction was seriously retarded and much which had been accomplished was quickly undone. Soon operation on the main line and almost all other sections was dislocated. Apart from the heavy material loss suffered by the railway and the loss in earnings of approximately Rs.100,000 a day, the dislocation of railway traffic was painfully felt by the populace, with internal trade paralysed; rice stocked in the districts could not be transported, and food prices soared.

The following are some principal results:

	1947–48	1948–49
Route mileage open ...	1,777	1,771
	(Millions)	
Passenger-journeys	10·1	4·6
Passenger-miles	300·5	74·2
Goods tonnage conveyed ...	1·9	0·7
Goods ton-miles	318·9	97·6
	(Millions of rupees)	
Passenger revenue	13·4	3·8
Goods traffic revenue ...	31·5	10·2
Gross traffic receipts ...	46·7	15·8

Due to disrupted communications, complete reports from stations and district offices had not been received, and records at many stations held by the insurgents were destroyed. As such, no accurate figures are available for comparison. However, from the particulars available the gross earnings during the year show Rs.15·8 million provisionally, about Rs.7·8 million less than the revised budget figures.

The three classes of passenger accommodation were reduced to two, upper and lower, fares being equivalent to second and third class respectively. The possibility of some passenger tickets supplied to stations before the insurrection falling into the hands of insurgents and others, made it necessary to supply new tickets to stations different from the pre-insurrection tickets. New tickets were printed in red with numbers in black so that the staff would know straightaway whether the passenger was travelling on a genuine ticket or not. Although civil disturbance caused heavy losses of traffic, the railways played an important part in enabling Burma to fulfil her commitments to the International Emergency Food Council by bringing in rice to seaports for export to needy countries. Export rice began to move in large quantities from November, 1948, but the special services had to be cancelled from February, 1949, due to the insurrection.

During the period under review it was thought necessary to examine whether existing rates and fares, based more or less on the pre-war scales with 100 per cent surcharge, enabled the railway to pay its way. Examination revealed that although the total revenue earned during the past two years showed a small surplus over ordinary expenditure, it was not enough to meet the interest charges, due mainly to heavy increase in the cost of coal and other materials, and also to increase in the wages occasioned by the high cost of living. As there was no room to make any further reduction in expenditure, the only course open was to raise rates and fares by certain percentages, in tune with the general increases in commodity prices. The proposed rates came into force from October, 1949.

Damage to bridges through insurgent activities during the year was much more severe than during the previous year, and no sooner had these been repaired than they were again destroyed. Without taking into account damaged bridges in areas occupied by insurgents, the number of those damaged was 113. Repairs had almost exhausted the stock of 40-ft. and 60-ft. spans, though every effort was made to repair the damaged girders and to replace the damaged spans with rail girders wherever possible. The supplies of materials are limited and if daily destruction goes on at the present rate, these supplies will soon be exhausted.

The locomotive position was good at the end of the year under review. Of 292 engines, 73 were in rebel-occupied areas. Fifteen new 4-6-4 passenger tank locomotives were received from the United Kingdom and placed in service. Destruction of and damage to shops delayed assembly of carriage and wagon components delivered from Britain and India, though erection facilities were improvised.

British Transport Commission Traffic Receipts

THE trends shown in British Railways receipts for the first four-weekly statistical period of this year continued in the second period. Passenger receipts were 3 per cent. down on the corresponding figure for 1950, against a drop of 7 per cent. for Period 1; the coal economy cuts in passenger train mileage have not therefore had any visible effect, which was perhaps to be expected in view of the selection of the most lightly loaded trains for cancellation.

General merchandise and livestock receipts were only 13 per cent. up on last year, which represents decline in traffic in view of the rate increase last May; the 4 per cent. fall in merchandise tonnage for the preceding period is a rough indication of the tonnage which will be recorded for Period 2. Mineral traffic receipts, however, were nearly 17 per cent. above those for Period 2 of last year, representing equal tonnages (against a drop in tonnage of 3·6 per cent. for Period 1); coal receipts, however, were nearly 21 per cent. up on 1950, which represents a rise in tonnage, and an improvement on the preceding period, which showed a 3 per cent. drop in tonnage compared with 1950. Both mineral and coal traffics for January were probably affected by the weather. Merchandise, mineral, and coke receipts for Period 2 were in each case an improvement on the preceding period. Parcels receipts were only 12·5 per cent. up on last year (though an improvement on Period 1); this represents a fall in traffic compared with 1950. Total British Railways receipts were 11 per cent. up on last year, and 7 per cent. on the preceding period.

	Four weeks to February 25		Incr. or decr.	Aggregate for eight weeks		Incr. or decr.
	1951	1950		1951	1950	
	£000	£000		£000	£000	
British Railways—						
Passengers	5,899	6,101	− 202	11,532	12,153	− 621
Parcels, etc., by passenger train	2,401	2,134	+ 267	4,648	4,186	+ 462
Merchandise & livestock	7,305	6,462	+ 843	14,116	12,689	+ 1,427
Minerals	2,688	2,306	+ 382	5,266	4,675	+ 591
Coal & coke	6,879	5,678	+ 1,201	13,208	11,102	+ 2,106
	25,172	22,681	+ 2,491	48,770	44,805	+ 3,965
Road Passenger Transport: Provincial & Scottish—						
Buses, coaches & trolleybuses	2,643	2,340	+ 303	5,218	4,785	+ 433
London Transport—						
Railways	1,196	1,092	+ 104	2,388	2,215	+ 173
Buses & coaches ...	2,321	2,244	+ 77	4,595	4,486	+ 109
Trolleybuses & trams ...	729	802	− 73	1,469	1,602	− 133
	4,246	4,138	+ 108	8,452	8,303	+ 149
Inland Waterways—						
Tolls	60	48	+ 12	116	100	+ 16
Freight charges, etc. ...	59	64	− 5	117	128	− 11
	119	112	+ 7	233	228	+ 5
Total...	32,180	29,271	+ 2,909	62,673	58,121	+ 4,552

London Transport total receipts were slightly in excess of both last year and the preceding period, with slight increases in railway and bus and coach receipts, and, as might be expected, a fall in tram receipts. B.T.C. road transport (provincial and Scottish) receipts showed some increase over Period 2 of 1950.

For four of the Commission's activities the total receipts for Period 2 were some 10 per cent. in excess of those

for the same period of 1950, but as these do not include British Road Services, the second largest B.T.C. activity, this figure is relevant chiefly for purposes of comparison.

PERCENTAGE VARIATION 1951 COMPARED WITH 1950

	4 weeks to February 25	8 weeks to February 25
British Railways—		
Passengers	− 3·3	− 5·1
Parcels	+12·5	+11·0
Merchandise & livestock	+13·0	+11·2
Minerals	+16·5	+12·6
Coal & coke	+21·1	+18·9
Total	+10·9	+ 9·0
Road Passenger Transport	+12·9	+ 9·0
London Transport—		
Railways	+ 9·5	+ 7·8
Buses & coaches	+ 3·4	+ 2·4
Trolleybuses & trams	− 9·1	− 8·3
Total	+ 2·6	+ 1·7
Inland Waterways	+ 6·2	+ 2·1
Aggregate	+ 9·9	+ 7·8

The Future of the Cuban Railways

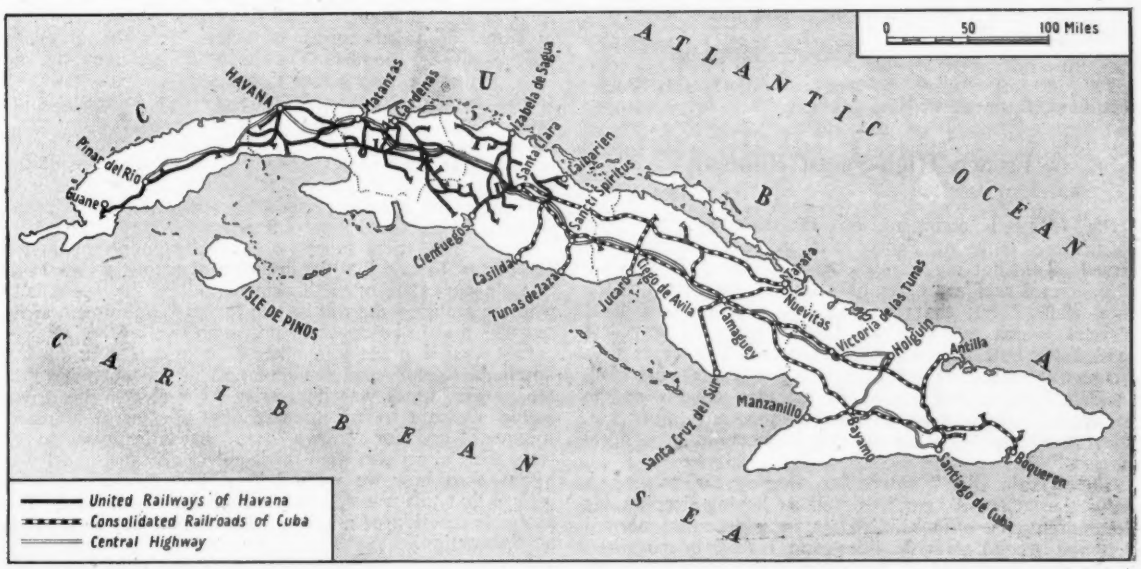
ONLY some 2,600 of the 10,000 miles of railway in Cuba are worked as public-service lines; the remainder are private concerns owned and worked by the sugar industry. Two administrations are responsible for the public-service lines, the British-owned United Railways of Havana and the Consolidated Railroads of Cuba, an American company. Both these systems, which were briefly described in our issue of December 8, 1944, are almost entirely of standard gauge. They share the public-service route-mileage almost equally and depend mainly on sugar traffic. Unfortunately, the affairs of the United Railways Company are now subject to receivership proceedings in the United Kingdom and to interventorship in Cuba. Both railways are over-capitalised in relation to present or probable future earning capacity or real asset value. Rolling-stock renewals have been prejudiced and, on the United Railways, track maintenance also.

A report on the two railways, by a mission to Cuba under the auspices of the International Bank of Reconstruction & Development at the request of the Government of Cuba, considers that "Cuba must continue to have a railway system, and any conditions endangering that system endanger Cuba." In the past decade, both railways have spent large sums on maintenance and improvement of tracks and equipment, the Consolidated $65,705,400 and the United $46,523,000, but neither has achieved even relatively modern equipment. On both systems there is much over-age rolling stock and deferred maintenance; one-third of the United Railways locomotive stock is reported to be at least 40 years old. Rapidly rising cost of labour is making the situation increasingly difficult for both railways, which also claim large sums owed to them by the Government of Cuba for services performed for its various branches, for which payment has not yet been made. The figures are some $6 million owed to the Consolidated Railroads and over $12 million to the United Railways, but meanwhile the Cuban treasury is paying the operating deficits on the United Railways.

Road competition also is seriously affecting the railways, especially the United, as roads are far more numerous in the neighbourhood of Havana. Some 75 per cent. of the total imports of the country enter *via* Havana, and are largely carried inland by road. Throughout the island, buses now carry twice as many passengers as the railways. The report rules out (mainly on financial grounds) total substitution of the railways by road transport, though it agrees that some unprofitable lines might be closed or transferred to the sugar undertakings.

The report concludes that neither Government subsidies nor Nationalisation will solve the problem, as both are likely to lead to inefficiency. The alternative recommended is the amalgamation and reorganisation of the two systems, to be worked by a new company, in which the sugar industry should acquire substantial minority interests and a minority participation in its control. The Government of Cuba, it is suggested, should give full support to the reorganisation and provide reasonable assurances with respect to payment not only of its existing obligations, but also for new services, to conditions of employment, and competition with other forms of transport, so as to enable the new company to be self-supporting. If these forms of co-operation are forthcoming sufficient capital should be obtainable.

A further recommendation is that, in the first instance a reorganisation committee of three should be constituted, one member to represent each of the existing railway companies, and the third to represent the sugar mill owners interested in the reorganisation. With the aid of technical and independent financial advice this committee should deal with existing and future financial considerations affecting the reorganisation. Latest reports state, however, that the President intends to ask Congress for funds to nationalise the United Railways.



Map of the two principal railways in Cuba

XUM

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

Timetable Complication

March 9

SIR,—I was most interested to read Lord Garnock's letter in your issue of March 2, because it has always struck me that anyone unfamiliar with timetables could so easily make a mistake with the timings shown in their present form. The old L.M.S.R. system of showing a.m. and p.m. with a dot and stroke respectively—for example 11.22 and 11/22—was admirable, and I could never understand why the other main line companies did not follow suit. I invariably use the system myself and never add the a.m. or p.m. (to the lively satisfaction of my time and motion study friends!), and I am all in favour of British Railways adopting it too.

Yours faithfully,

A. J. V. MERRITT

Rockhurst, Eaglescliffe, Stockton-on-Tees

March 6

SIR,—I read with considerable interest Lord Garnock's letter in your issue of March 2, and fully agree with his observations. I feel that something should be done to clarify British Railways timetables generally.

Unless one is really interested in such things or is a mathematician, great difficulty is experienced in plotting an involved train journey, and indeed a simple one, such as the Huddersfield to Euston example. One wonders how the untutored overseas visitor gets along; without the help of enquiry offices and travel agents, in fact, I doubt very much whether he does!

Another point which occurs to one is the difference in sizes of individual timetables. This seems to have become even more involved since nationalisation. Surely the better examples are the Eastern, Western and Scottish Region timetables; they are easy to handle and are just the right size to slip into one's pocket if necessary. The London Midland Region table is a somewhat unwieldy affair, as is the North Eastern Region, but it is not quite so thick. The Southern Region is approximately the same size as the first three mentioned, but is much thicker. The answer to that would appear to be to print the suburban services separately.

May we hope in the future that the people who publish the timetables will get together and endeavour to arrive at a standard size.

Yours faithfully,

H. W. FRANKLIN

Staniland, Radwell, Beds.

French High-Speed Running

March 8

SIR,—May I comment on the first part of Mr. Carpenter's letter of February 6 in your February 23 issue? I did not say in my letter of January 19 that the three-named *rapides* "carry only a small proportion of the total traffic" but that the one day and the one night services which admitted all three classes of travellers carried the bulk of the traffic. The casual observer who has seen these trains must, I think, come to this conclusion. Incidentally the introduction of the tare weights of the trains has little bearing on the question, and, of course, they give no indication of the number of passengers carried.

The "Train Bleu" caters for sleeping car passengers only; the "Côte d'Azur," as well as having sleeping car accommodation, offers *couchettes,* in addition to normal first and second class facilities, and I shall be surprised if the passenger load of these two trains equals that of the night *rapide* which conveys third class passengers also.

Mr. Carpenter says "Le Mistral" is a light train and indeed it is. I had the pleasure of travelling by it from Marseilles to Paris in the first week it ran. It was composed of three passenger carriages (one first, two seconds) a restaurant car, a first class Pullman, and a van and at Lyons two composite carriages (first and second) were added. There is no doubt in my mind that the day *rapide,* which has third class accommodation, has the lion's share of the day traffic.

As regards fares, the French fares per km. are fr. 7.50 first class; fr. 5.25 second; and fr. 4 third (approximately 3d., 2.1d. and 1.6d. per mile). The British monthly return fares are 2.44d. first and 1.63d. third. The two third class fares are thus approximately the same, the French second class is 0.34d. lower than our first and 0.47d. higher than our third—that is, rather nearer our first in price than our third—while our first is appreciably nearer the French second than to the French first.

Yours faithfully,

C. H. LOTT

41a, Carlisle Mansions, S.W.1

Recovery Time in Passenger Schedules

March 10

SIR,—Your correspondent has raised a most important subject in your March 9 issue. There can be little doubt that the practice of including recovery time in schedules has considerable bearing on the regrettably poor standard of present-day timekeeping.

Following on from your correspondent's commendable remarks on the difficulties of signalmen and control staffs, there is also the problem of the satisfactory timing of additional passenger and freight trains and trains altered in working, such as is done in connection with Bank Holiday and seasonal traffic, as bad timings of additional trains will inevitably react on booked services.

The special traffic clerk timing an additional train amongst booked trains which are not allowed recovery time has merely to examine his graphical timetable to ascertain the whereabouts of any train and the line occupation and block section occupation at any point at any time, assuming right-time running all round, which must be the foundation of all timetable work.

If the proposed timing is "clear" on the graph, it may safely be adopted. On the other hand, on the old G.N. main line into Kings Cross with its recovery time from Knebworth to London, it is difficult to see how the same degree of accuracy can be obtained, for the exact manner in which the driver will run his train is problematical as your correspondent states in the case of the signalman's difficulty. Surely, therefore, it is impossible to determine the precise periods of line occupation in the Welwyn Viaduct and Potters Bar-Greenwood bottlenecks.

The psychological aspects are equally important, and it can almost be said that the insertion of recovery time leads to a slovenly state of mind akin to that of the young lady who, on realising she will be late for an appointment, airily remarks that her escort will not mind waiting.

Last year I made a number of footplate runs on the Southern Region, and the attention of the enginemen to the passing times was impressive. Frequently the driver would indicate to his fireman that we were so many minutes "up" or "down"; in the latter case, every reasonable effort was then made to regain time, and I was often asked how we were doing. I have no reason to believe that this was specially staged for my benefit. The probable reaction of a driver allowed recovery time needs no elaboration.

Yours faithfully,

J. F. ROGERS

Rusper Road, Ifield, Sussex

THE SCRAP HEAP

Disowned

With reference to the advertisement "Good News. Your trains are running again for Easter!" I don't want my trains. They are too dirty and so dear. I want the other fellow's trains—the chap who owned them before I did and kept them clean and cheap.—*From a letter to "The Evening News."*

U.S.A. Coal for Coalfield Locomotives

British Railways locomotives operating from depôts in South Yorkshire—where a tenth of Britain's national output of coal is produced—are filling their tenders with coal imported from America. The coal, which arrived at Immingham Docks, was allocated by the N.C.B. to railway depots at Hull, Doncaster, and Mexborough.

A British Railways spokesman said: "There is a fair proportion of American coal in use, but English coal is still preponderant." He added that the American coal was no better than our own—"but quite satisfactory for our purpose."—*From the "Sheffield Telegraph."*

York Railway Museum

A correspondent writes:—

The paragraph in the Scrap Heap about the York Museum is all wrong. Its founding had nothing to do with the Stockton & Darlington Railway centenary. Two of the North Eastern people, Mr. J. B. Harper, Assistant Superintendent, and Mr. H. J. Rudgard, Assistant Engineer for Maintenance, used to pick up a lot of quaint objects as they went about the line on their lawful occasions. Their collections interested Mr. E. M. Bywell, who was Editor of the *N.E.R. Magazine*, and early in 1922 he suggested that they would form the nucleus of a railway museum. So a committee was set up, with Mr. Harper as Chairman, and roused the departmental officers and individual members of the staff to join in the hunt for curiosities. Sufficient small articles were gathered together to fill a room in the York headquarters offices, and in the autumn of 1922 a large shed at Queen Street, York, was earmarked for rolling stock and permanent way specimens.

The museum went on growing after amalgamation, but was not in any sense "a continuation of the 1925 exhibition" at Darlington. Mr. George Davidson did a good deal for the museum when he was in charge of the North Eastern Area and by 1928 it was firmly established as a North Eastern institution. The main credit for the success of the scheme should go to Mr. Bywell, who has been Curator for nearly 30 years and has looked after the valuable collection of relics as a labour of love.

"We're all right so far, but I dreads the advent o'Spring on the more susceptible members o'my staff"
[*From "The Evening News"*

Train Runs Again

The train service between Watlington, Oxfordshire, and Princes Risborough, Bucks., ran as usual on March 8. Early last week, as was recorded in the Scrap Heap page in our issue of March 9, this service had to be suspended because a fireman had gone on his honeymoon and no substitute could be found. The situation was saved when engine-driver Tom Nicholson volunteered for the job for ten days.

Enticement

From Paris comes a challenge to station buffets strong enough to make a British Railways ham sandwich curl at the edges. Eight gourmets, including M. Paul Gaultier, President of the Society of Gastronomes, sat down to a meal designed to lure Britons and Americans off the station platforms into the buffets. Hence the choice of main dish bœuf à la mode, or boiled beef and carrots. The chef, M. Lorraine, said: "The smell of this cooking will bring tourists to me like chickens at feeding-time."—*From the "Daily Mail."*

"Locomotion No. 1"

In planning the rally of railway engines for the South Bank exhibition the organisers seem to have overlooked the father of them all. *Locomotion No.* 1, Stephenson's first passenger engine, has not so far been invited from Darlington to the party, although the newspapers have given pictures of a "veteran" a good deal younger journeying to Waterloo from France.

Locomotion was put on a pedestal at Darlington many years ago after a long and useful career. In September, 1925, the old engine came to life surprisingly well for a day's outing. On that occasion it led a procession of locomotives, of all ages and types over the route of the first railway journey between Darlington and Stockton There was one false note in the impressive display—*Locomotion* was driven by a petrol engine installed in its innards instead of being "in steam."—*From "The Manchester Guardian."*

Station Garden Displays

This year the "Best Kept Station" competition of the London Midland Region, British Railways, has attracted 676 entries, and there are already indications that the staffs are going all out to prepare extra special garden displays to celebrate the Festival of Britain. There are nearly 200 prizes to be won. Judges are to make two surprise visits to each station. Points will be awarded for flower and shrub cultivation, cleanliness of platforms and waiting rooms, and neatness of timetables and posters. As last year allowance will be made for stations without gardens and those in war damaged or industrial areas.

Painted Engines

The roll of railway enthusiasts has been swelled, lately, by admirers of station architecture. It is a cult to which I do not subscribe, myself, although, when young, I used to collect the coloured plates of locomotives from the *Railway Magazine*. I admired, particularly, the dark-blue engines of the Great Eastern, and the maroon engines of the Midland. Then, again, there were the subtle differences between the green of the Great Central and the North Eastern. All this has gone; and so, I am inclined to hope, have the old luncheon baskets, with wings of cold chicken tasting of railway tunnels. —*"Atticus" in "The Sunday Times."*

Railway Courtesies

When returning from London by night train, a colleague fell into conversation with an army officer and together they discussed the many shortcomings of British Railways. Their criticism, covering almost every activity of this great public body, seemed to be more than justified when, after eight hours on the train, they realised that it would be at least four hours late.

At York, at 7.15 a.m., they went in search of a cup of tea. From a refreshment trolly, manned by two particularly smart green-coated ladies, they got a cup of tea and a meat roll. "Won't you have some cake," one of the girls asked. They refused.

Then, as they handed the money over, an inspector stepped forward, and said, "This refreshment is free of charge, with the stationmaster's compliments. I hope you will enjoy the snack, and I am sorry we cannot offer you a full breakfast."

The inspector went on to explain that because the train was late the stationmaster was anxious that the passengers should have some kind of light refreshment.—*"Looker-on" in the "Sunderland Echo."*

XUM

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

SOUTH AFRICA

Additional Estimates

Additional railway estimates of expenditure for the year ending March 31, 1951, totalling £3,620,342 from revenue funds and £4,117,800 on capital and betterment works, have been tabled in the House of Assembly by the Minister of Transport.

The additional estimates bring the total estimated expenditure for 1950-51 to £104,242,000 from revenue funds and £26,606,189 on capital and betterment works, or £22,488,389 after provision for savings. Of the additional £3,620,342 on revenue accounts, £1,104,482 is for the maintenance of rolling stock. The increase is attributed to higher costs of materials and to repair work being greater than originally estimated.

A large proportion of the increased amount is for wages. An increase of £674,142 in the estimated expenditure for running expenses is attributed to additional operating costs and higher prices of consumable stores and materials. Of the additional £4,117,800 on capital and betterment works £3,000,000 is for working capital. The additional amount is attributed to increased activities of the administration and enhanced prices of material.

WESTERN AUSTRALIA

Railway Cadetships

It has been decided to begin a railway engineering cadetship scheme to overcome the serious shortage of professional engineering staff in the Railway Department. In announcing this proposal, the Minister for Railways said that the shortage of trained engineering staff was one of the major problems facing the Railway Commission in its rehabilitation programme.

An adequate and continuous training scheme, particularly for mechanical engineering, was essential. It should be capable of producing sufficient mechanical engineers and engineering assistants to meet the State needs and should provide local youths with the facilities for becoming eligible for the highest positions in the railway service.

Up to two cadetships will be offered annually to selected apprentices to enable them to undertake a five-year course of full-time training at the University for the degree of Bachelor of Engineering (Mechanical or Electrical). Cadets will be selected by competitive examination from apprentices under 20 years of age with the requisite qualifications. Apprentice cadets will be paid apprenticeship wages with a maximum of fourth-year pay for the five-year course. On gaining a degree, cadets will be appointed pupil engineer with pay at the rate of assistant engineer, and will do up to two years' practical training.

There will also be up to two cadetships annually in mechanical or electrical engineering offered to selected candidates who will undertake the five-year course at the university. Selection will be from candidates with similar qualifications to those required of the apprentices. During vacation these candidates will be required to serve in the department on practical training duties, for which they will be paid. On gaining a degree they will progress in the same manner as apprentice cadets.

CANADA

"This is Canada" Film

The Canadian National Railways have made a film entitled "This is Canada," which has been acclaimed as the most complete ever produced of Canada. With ten other C.N.R. films, it was shown on television recently in New York to display the scenic attractions and holiday possibilities of Canada.

UNITED STATES

Wage Dispute Settlement

A settlement of the wage dispute between the railways and 15 non-operating unions was announced on March 1. It gives a 12½-cent an hour pay increase to a million workers and pledges a cost-of-living adjustment every three months. The increase is back-dated to February 1, a compromise with the unions which wanted it to date from last December 1, and the railways which asked for it to come into effect on March 1. The agreement specifies that no further wage increase by the unions concerned will be sought until October 1, 1953.

The settlement does not directly affect the dispute with the four operating workers' unions.

ARGENTINA

New Summer Timetables

A study of the new summer timetables recently put into force shows no substantial changes from the services outlined in our August 4, 1950, issue, with the exception of the inclusion of seasonal tourist expresses to seaside and hill resorts. The only changes worthy of note are following. On the General Roca Railway the diesel set which previously ran on the Bariloche, Bahia Blanca, and Mar del Plata routes has now been placed in service between Buenos Aires and Necochea it runs twice weekly.

Mar del Plata is served by a day stopping train and five expresses, three of which run six days a week, one daily and one at weekends. On the General Mitre Railway the Tucumán services revert to the former arrangement of five stopping trains a week, the air-conditioned "El Tucumano" twice weekly, and the express "Estrella del Norte" also twice weekly. The only addition on the Córdoba service is a new night express, "El Cordobés," three times a week, made up with day coaches.

The diesel express "El Capillense," of the General Belgrano Railway, between Buenos Aires and Capilla del Monte in the Córdoba hills is now run by a seven-car train built in the Tafí Viejo workshops and hauled by one of the new General Electric twin-unit diesel-electric locomotives. The coaches have special roller-bearing bogies designed for use in mountainous sections with sharp curves. Other features are an air-conditioning system and fluorescent lighting. The train has a total capacity of 400 passengers.

CEYLON

Tunnel Collapse

Part of the crown of tunnel No. 18 on the Badulla line between Pattipola and Ohirja collapsed on January 5, while repairs were being made to the concrete lining 335 ft. from one end.

Though rail supports had been erected, the concrete lining gave way on the crown due to the pressure of loose earth and water pockets causing a large cavity. The tunnel was consequently blocked by large quantities of falling earth and water from the hill above. More earth and rock continually fell, hampering the repair work. Rail supports were erected and timber headings driven under the cavity for repairs.

The work was necessarily difficult and slow, and further interference by falling rock and earth and heavy tropical rain delayed its completion. Labour gangs worked 24-hr. shifts, working sometimes waist-deep in water and in the cold subterranean air at an elevation of 6,250 feet above sea level.

The tunnel was reopened to traffic on February 12.

FRANCE

Traffic Receipts Improve

During the first four weeks of 1951, the number of wagons loaded, and entering France loaded from abroad, in the S.N.C.F. Regions amounted to 1,103,167, an increase of 92,029 wagons over the figures for the four corresponding weeks in 1950. Operating receipts for the first three weeks in 1951 amounted to fr.13,616,000,000 (about £13,616,000), an improvement of 14·5 per cent. over the corresponding period in 1950.

S.N.C.F. Flat Wagons

Rolling stock of the S.N.C.F. now comprises 52,600 flat wagons of all kinds, including 5,450 of great length. Orders given in 1950 included 1,000 flat wagons from the Société Baume at Marpent and 400 from the Compagnie Française de Matériel. More than half these wagons have already been deli-

vered. During the past year, the S.N.C.F. has received 175 flat bogie wagons from the Etablissements Arbel. For 1951, the S.N.C.F. has ordered 400 extra long flat bogie wagons and five special flat wagons from the Etablissements Cadoux. The S.N.C.F. in its own workshops will convert existing wagons to 600 flat wagons and 100 flat trailer-transport wagons. Freight rolling stock orders for 1951 comprise 350 vans and 100 grain tank wagons.

SPAIN

Through Vans to France

The firm of Transportes Ferroviarios Especiales, S.A., has placed in service 40 vans with double floors, and interchangeable axles, to enable them to run through to France. Within three years the company plans to have 500 to 600 vans; 125, due for early delivery, will be refrigerator vans, built to run on British Railways *via* the Dunkirk-Dover ferry.

At Hendaye, the French frontier station, the Spanish broad-gauge axles are set free by first dismounting the crossbar in the axleguard plate. The van is then lifted by four electric jacks, and the disengaged axles are then taken out, stacked on a siding ready for fitting to vans returning to Spain from France, and replaced by a standard-gauge set of axles. A team of 14 men can change the axles of 12 vans in two hours.

WESTERN GERMANY

New Passenger Locomotive

As a further development of a standard locomotive programme, the Federal Railways, which placed in service last September the first locomotive of the standard "82" series, have introduced another type of new locomotive, of the second standard series, to be known as "23."

It is a superheated two cylinder 2-6-2 passenger locomotive, designed to replace the obsolete locomotive of series "38-10" (originally "P8") of which many were built for the former Prusso-Hessian State Railways. The boiler, frame, and tender are of all-welded construction. The cylinder dia. is 21⅛ in. and the coupled wheels are 5 ft. 8⅞ in. The weight in working order is 147.1 *tonnes*. The new locomotive, of which 25 units have been ordered so far, is only 4 *tonnes* heavier than its predecessor.

Fifteen of the locomotives have been ordered from Henschel & Sohn G.m.b.h., of Kassel. The other ten have been ordered from Lokomotivfabrik Jung of Jungenthal, Sieg. The locomotives delivered so far have been placed in service in the Bremen, Siegen, and Kempten districts.

IRELAND

Peat-Burning Locomotives

Mr. Daniel Morrissey, Minister for Industry & Commerce, has stated in the Dail that experiments in the burning of native fuel in locomotives of Coras Iompair Eireann are progressing satisfactorily.

Locomotive Coal from U.S.A.

As the allocation of locomotive coal from Britain has been further reduced, Coras Iompair Eireann has placed orders for coal in the United States. It is expected that four cargoes of about 8,000 tons each will be received during April and May. The cost of the coal to C.I.E. will be £9 a ton, delivered at Dubline quayside. Discharge and movement to locomotive depots will add considerably to the cost.

Publications Received

The Locomotive Exchanges: 1870-1948. By Cecil J. Allen. Second Edition. London. Ian Allan Limited, 282, Vauxhall Bridge Road, S.W.1. 8¼ in. × 5½ in. 176 pp. lx pp. Appendix. Illustrated. Price 15s.—Two earlier books by Mr. Allen, "The Locomotive Exchanges, 1870-1948" and "New Light on the Locomotive Exchanges," which were reviewed in our July 1 and August 5, 1949, and August 11, 1950, issues, have now been combined in a single volume. The text has been revised and the new volume combines a most readable account of locomotive exchanges in Britain with abundant statistical matter.

World Railways: 1950-51. Compiled and edited by Henry Sampson. First Edition. London: Sampson Low, Marston & Co. Ltd., 25, Gilbert Street, Oxford Street, W.1. 13 in. × 8½ in. × 1½ in. 620 pp. Fully illustrated. Price £3 3s. 0d.—In this new companion volume to "Jane's Fighting Ships" and Jane's All the World's Aircraft" a wealth of information and more than 1,200 illustrations have been collected. As well as general particulars, many gradient profiles, loading gauge diagrams, and maps are included; the maps, however, vary in standard. The illustrations are of motive power and rolling stock. Half the volume is devoted to Canada and the United States, which are covered comprehensively. Elsewhere the space devoted to various countries tends to be out of proportion. Belgium, for example, is compressed into a quarter-page, while the Netherlands section occupies eight pages. Similarly, two pages suffice for India, but the adjacent dominion of Pakistan is given seven. Details of British Railways locomotive renumbering since 1948 and lists of locomotive names seem out of place in a book world-wide in scope. Nevertheless there has been a praiseworthy attempt to produce a work of reference in which information on aspects of railways in all countries is presented in attractive form.

The Nottinghamshire Countryside. January, 1951. The official organ of the Notts. Rural Community Council, 11, Park Row, Nottingham. Price 3d.—In an article on the preservation of the countryside, Mr. H. C. Carlton, Chairman of the Nottinghamshire Planning Committee, suggests use of redundant railway track and installations for fast road traffic and road transport purposes. His object is not only the relief of overburdened roads and reduction of road accidents, but also the preservation of the countryside threatened by road development; to achieve this, a Royal Commission is advocated, but no concrete suggestions are made as to the solution of physical difficulties such as the width of formation and tunnels.

Chittaranjan. Special supplement of *East Indian Railway Magazine*. Calcutta, India: E. I. Railway House, 17, Netaji Subhas Road. 11 in. × 8½ in. 266 pp. Illustrated. Paper covers. Price Rs.3 (5s.).—This supplement has been issued to commemorate the inaugural ceremony performed by the President of India on November 1, 1950, when he named the new Chittaranjan locomotive works, which is to supply all Indian railways with new locomotives, and drove a Class "WG" 2-8-2, the first to be assembled there, out of the shops. Pride of place is given to appreciations of the supplement from the President, Prime Minister and other dignitaries, whose portraits are included. These are followed by a life history of the Swaraj patriot, Deshbandhu Chittaranjan Das, after whom the works is named. Other features are a history of the project, the layout, staff quarters and amenities, construction works and technical aid from the United Kingdom. On January 26, 1950, the widow of Chittaranjan Das switched on power at the works. This ceremony is also described. There are biographies and portraits of Mr. P. C. Mukerjee, General Manager of the works, Mr. B. Venkataraman, Chief Mechanical Engineer, and other officers. The supplement concludes with various technical and trade notes, including details of the class "WG" engine and an eight-page description of Swindon works.

Travel in France.—Holiday travel literature distributed by French Railways Limited, 179, Piccadilly, London, W.1, includes a booklet illustrated in colour and half-tone dealing with travel in France generally by rail and French National Railways motorcoach services; in the booklet are route-maps of France and of the international expresses radiating from Paris. There are also folders devoted to the several regions of France, such as the Ile de France, the Riviera, the Vosges, Normandy, and so on, each with a coloured map of French Railways road services in the region and local travel information.

XUM

Railway Freight Rates in U.S.A.

Procedure in putting forward an application for increases to meet rising costs of operation

(*By a Correspondent*)

AN article in *The Railway Gazette* of February 23 on the position of U.S.A. railways in 1950, mentioned that they are seeking authority to increase freight rates by 6 per cent. Some information on the procedure for dealing with their proposal may be of interest at the present time as it seems certain that the British Transport Commission will ask the Minister of Transport to approve an advance in charges to meet the cost of the recent settlement made with the trade unions. Under section 82 of the Transport Act, 1947, the Minister has power to make an order authorising higher charges, provided that he has consulted with, and considered the advice of, the permanent members of the Transport Tribunal, acting as a Consultative Committee. It will be recalled that the Minister adopted that course before authorising the increase of 16⅔ per cent. in freight charges which came into effect on May 15, 1950.

The first step taken by the U.S.A. railways was to lodge a petition with the Interstate Commerce Commission on January 16. The petition, covering 32 pages of print in pamphlet form, is couched in semi-legal language and signed by 25 attorneys for railway companies, headed by Mr. E. H. Burgess, of the Baltimore & Ohio Railroad. In verification of the statements made, each of the Vice-Presidents in charge of traffic of the Pennsylvania, Louisville & Nashville, and Milwaukee Railroads "deposes and says" that he has read the petition and its contents are true.

Outline of the Petition

The gist of the petition is that present rates and charges do not produce a net railway operating income adequate to provide the service required in the public interest. For 1950 that income is estimated at $968 million, giving a return of 3·93 per cent. on property investment. In 1951, wages will increase by $138·5 million at least, owing to a settlement of trade union demands negotiated by Dr. J. R. Steelman, the President's representative, in December, after the unions had rejected the findings of an Emergency Board appointed under the Railway Labour Act.

The cost of railway fuel and materials has increased since 1949 by $283 million a year, making a total increase in working costs of $422 million a year. Unless rates are advanced, it is estimated that net railway operating income in 1951 will fall by 14 per cent. to $827 million, yielding a return of less than 3·3 per cent. on investment. Such a rate of return is described as "woefully inadequate in the light of the reduced purchasing power of the dollar."

Petitioners propose that freight rates and charges be increased 6 per cent., with the exception that coal rates will be increased by 18 cents. per net ton. In the case of fresh fruit and vegetables, lumber and sugar, the increase would be subject to stated maxima, while a few miscellaneous charges for loading, wharfage, handling, or storage would not be altered. The petition asserts that the increased rates and charges will be just and reasonable, and will not result in loss of traffic to an extent which will deprive the railways of an addition to their revenue, calculated at $470 million on the basis of estimated 1951 traffic. The railways would then earn a net operating income of $1,058 million this year, representing a return of 4·17 per cent. on investment.

Appeal for Quick Action

The petition ended with a prayer to the Commission to act quickly, but that body would not agree to allow the increase of 6 per cent. to be applied immediately as a measure of interim relief, and fixed February 19 for a public hearing of the case. In support of the application 14 railway witnesses filed verified statements with the Commission on January 30, but a comprehensive statement on behalf of the rail carriers was lodged twelve days earlier by Dr. J. H. Parmelee, Vice-President & Director of the Bureau of Railway Economics, Association of American Railroads, and no doubt will be the leading evidence-in-chief.

The statement is largely a commentary on 28 statistical tables, which give a complete picture of railway development in the United States from 1921 to 1949, and add some estimates for 1950. Figures throwing fresh light on the U.S.A. position are quoted below.

1. The narrowing margin of profit accruing to the railways can be measured by the proportion of the average dollar of total operating revenues retained as net income. For the five years 1926-30 the ratio was 12·2 cents per dollar. For 1950 the ratio was 7·7 cents per dollar, and for 1951, on the basis of present freight rates, it is estimated at 5·8 cents per dollar.

2. The reduced purchasing power of the dollar weakens railway finances. Reduced to the basis of 1935-39 dollars, the net railway operating income of $968 million for 1950 becomes $448 million, and the net income of $722 million shrinks to $334 million.

3. Net railway working capital is calculated by deducting current liabilities from current assets (exclusive of material and supply inventories). At the end of 1945 it amounted to $1,659 million, and decreased by 47 per cent. to $872 million on October 31, 1950.

4. In 1949 the average rate of dividend on all railway capital stock was 3·2 per cent. and more than a third of the stock did not receive any return. In contrast, the average rate of return earned by 45 manufacturing industries was 13·8 per cent. Motor vehicle makers had the highest rate, 30·8 per cent.; the iron and steel industry earned 11·5 per cent.; and the manufacturers of railway equipment 7·2 per cent. Outside the manufacturing field, the mining and quarrying industry earned 13·5 per cent.; electric power and gas supplies 9·6 per cent.; and telephone and telegraph companies 6·9 per cent. The surprising result was a return of only 1·5 per cent. for traction and bus concerns, which had a return of 4·8 per cent. in 1947, but have fared badly since.

5. A statement of operating trends shows that the all-time record of 44,422 gross ton-miles per freight train-hour was achieved in the first nine months of 1950, an increase of 35 per cent. on the 1939 figure. The Pocahontas region, with three great coal carrying railways, had the remarkable output of 59,434 gross ton-miles per freight train-hour.

The whole of the statistics prove that the railways have for years made progress in operating efficiency and economy, but recent experience has been that the resulting gains have not kept pace with the rising cost of working.

APPLIED HIGH FREQUENCY LIMITED.—Agency agreements have been concluded for the sale of A.H.F. high-frequency induction heating equipment in Scotland and south west England. For Scotland the agent is John S. Young & Co. Ltd., 257-261, Eglinton Street. Glasgow, C.5, and for south west England the firm of Hocking & Orchard Limited, 90, Victoria Street, Bristol, 1.

A USEFUL BUSINESS SERVICE.—A 24 hr. telephone service which should be of particular value to railway officers from abroad visiting this country on duty or leave, is offered by Finders Limited, of 114, Wigmore Street, London, W.1. In effect, the firm is a telephone headquarters for the subscriber. It receives and passes on his calls, and, if required, becomes an extra secretary, even keeping his appointment book and re-directing correspondence. It will book hotel accommodation, and theatre and travel tickets, make and deliver purchases, and act as an information bureau. The subscriber may quote on his visiting cards and stationery the telephone number of the firm, Welbeck 6655. This time-saving service should also make a special appeal to business men and tourists here for the Festival. The basic standard business rates are: one week, 12s. 6d.; one month, £1 10s.; one year, £8.

British Railways Standard Coaches

Underframes and bogies, together with the body structure, are of common design to ensure ease of production

TWELVE types of standard corridor coaches of an entirely new design are now in production by British Railways. These will be capable of working over any of the main-line routes in the country. Features of the coaches are a new design of underframe and the use of automatic couplers. They are of all-steel construction and have double bolster bogies for good riding.

Twelve New Types

The types of corridor vehicles to be built in 1951 comprise the following:—

- Corridor First
- " Third
- " Composite
- " Third Brake
- " Compo Brake
- Open First
- " Third
- " First Class Dining Car
- " Third Class Dining Car
- Kitchen and Pantry Dining Car
- Kitchen and Pantry Car } non-passenger carrying
- Brake and Luggage Van }

All vehicles will be equipped with automatic couplers and Pullman type gangways, and to enable these coaches to be coupled to existing stock fitted with screw couplings during the transitional period, the automatic couplers will be of the drop head type, the side buffers being retractable. The coaches will be fitted with automatic vacuum brakes, the equipment consisting of two 22 in. dia. cylinders of the slipping band type, direct admission valves being fitted to give accelerated brake applications.

The underframe, which has been designed to take buffing loads of 200 tons both on the centre coupler and on the retractable side buffers, consists of two centre girders from which cantilevers project to support the solebars, which in turn carry the bodyside structure. Standard rolled sections are used throughout, these being fabricated by electric welding.

The bogies are of the four-wheel double bolster type using standard rolled sections and are of riveted construction. The wheelbase is 8 ft. 6 in. and the wheel diameter 3 ft. 6 in.; this type was adopted as a result of tests on the best types of the former companies and it is a development of the existing double bolster type which was found to have superior riding qualities when compared with the single bolster type.

The axles have journals 9 in. × 4⅝ in. dia., except in the case of kitchen cars, which will have 10 in. × 5 in. dia. journals. Axleboxes are of the cast-iron open fronted type and the bearings are lubricated by a spring loaded pad.

The body is constructed of pressed-steel members, the majority of which are of the "top hat" section. The body framing members are pressed from 10 and 14 gauge deep-drawing quality steel, and the body and roof panels are of 16 gauge steel sheets, the latter galvanised. One feature of the body is the contour of the sides, which are in the form of a continuous radius from the bottomside to the cant rail, and to enable flat glass windows to be fitted the side panels are pressed flat around the window opening, forming a tangent to the curved bodyside.

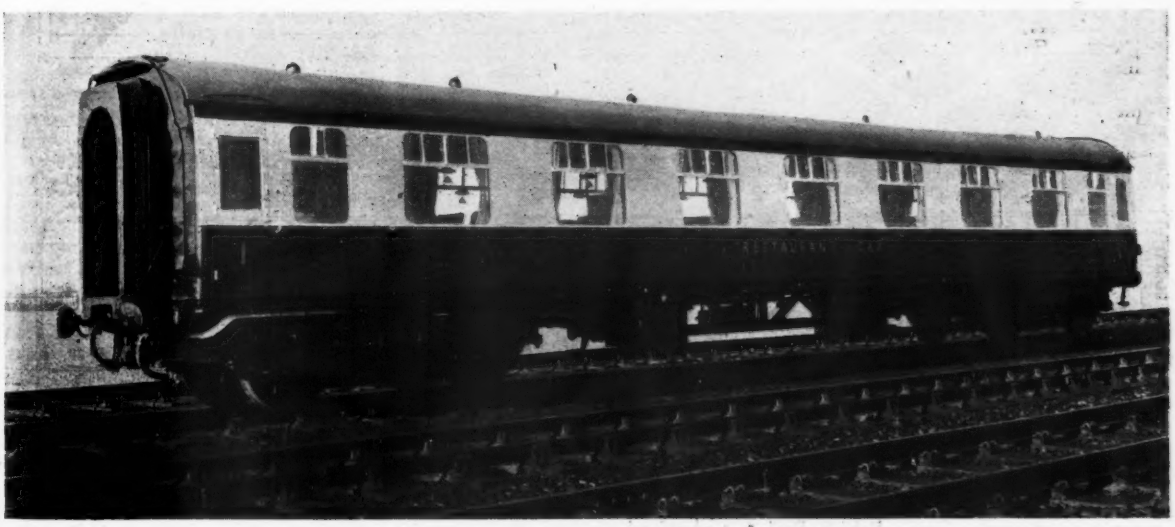
The flooring consists of ¾ in. resin bonded plywood secured to the pressed-steel floor bearers and to the outrigger plates, the compartment and corridor floor being covered with linoleum and the lavatory floor with tiles.

Compartment and corridor partitions are of blockboard, the latter veneered with appropriate decorative veneers to suit the varied interior decoration. The body side panels and transverse partition finishing panels above the seat backs are of $\frac{3}{16}$ in. three ply, while the panelling in the corridor and vestibules is of ¼ in. plywood, all of which is suitably veneered with a decorative veneer to match the general interior finish. The compartment ceiling panels are of plastic material $\frac{1}{16}$ in. thick backed with ¼ in. ply or hardboard panels.

Lighting Equipment

The lighting equipment on vehicles other than kitchen cars consists of a 70 amp. 24/32 volt axle-driven shunt field dynamo with a regulator combining all the necessary switch gear as a unit, and a battery of 12 lead acid accumulator cells housed in two battery boxes on the underframe. The electric equipment fitted on the kitchen cars, which are of 48 tons tare weight, provides current at 110 to 135 volts for the anthracite/electric cooking installation in addition to the lighting, which is controlled by the regulator at the required voltage.

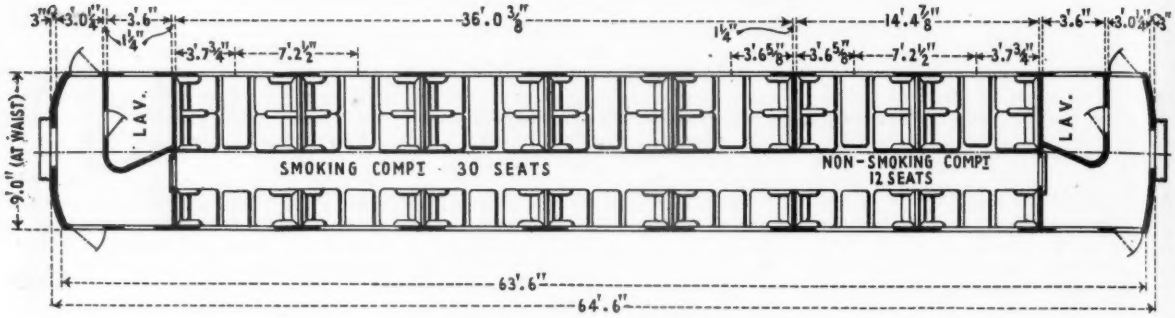
Compartment heating is by thermostatically controlled steam radiators of the gilled tube type which can be regulated by the passenger through Arens remote control. The outside doors and corridor compartment sliding doors are fitted with balanced frameless drop lights, and ventilation is effected by



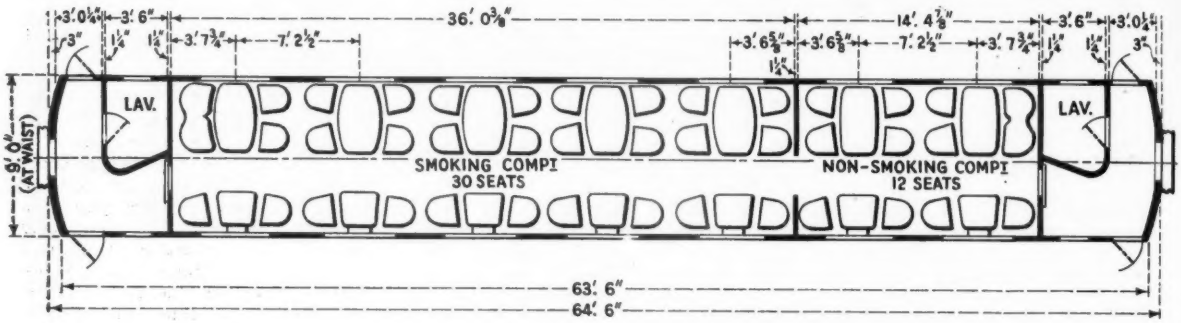
Standard open first (Type H) coach for British Railways

XUM

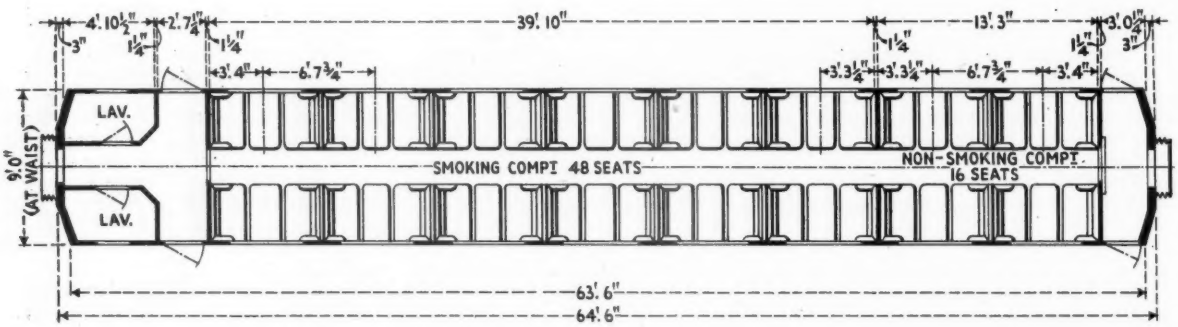
British Railways Standard Coaches



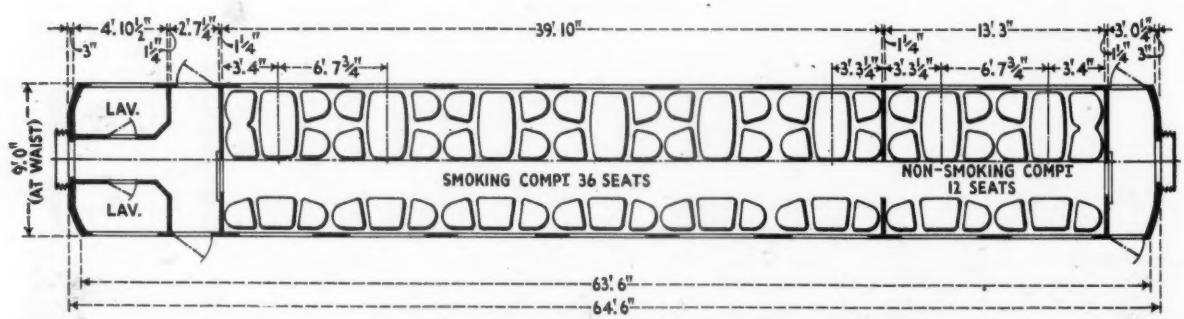
Open first (Type G) coach with 42 seats



Open first (Type H) coach with 42 seats

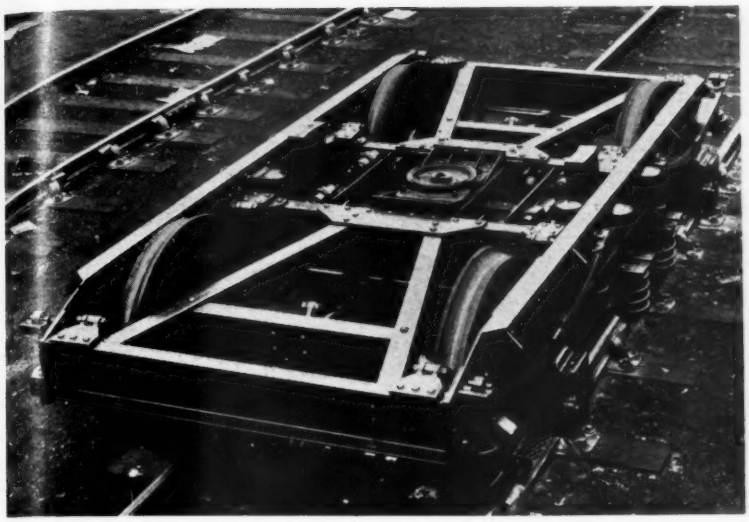


Open third (Type J) coach with 64 seats



Open third (Type K) coach with 48 seats

General arrangement of new British Railways standard coaches of 33 tons 10 cwt. tare weight. Layouts indicated above can be used in conjunction with a standard underframe



Four-wheel double-bolster bogie of riveted construction

means of roof extractors and sliding ventilators fitted over the 4-ft. wide body side windows.

The lavatories have water sealed hoppers and pedestal wash basins, these being of primrose colour to match the panelling. Hot and cold water is available, and liquid soap is supplied from a dispenser concealed behind the panelling. Louvre ventilators are fitted in addition to the ceiling ventilator, and heating is provided by a wall radiator covered by an ornamental grill.

Interior Decoration

For the interior decoration some 14 decorative veneers have been selected; in the corridors and vestibules light colour mahogany will be the standard. The seats in the first class carriages are furnished with loose sprung cushions and the hinged arm rests between the seats and the head rests have sponge rubber filling. The trimming is of blue patterned moquette; four different patterns have been selected. A double luggage rack is fitted above the seats, the wide top portion being for suitcases, while the narrower rack below accommodates smaller articles. The large bodyside windows are fitted with curtains clipped back with cords.

The seats and seat backs of the third class compartments are of the unit type upholstered in moquette; five different patterns have been selected. Hinged arm rests are fitted and so arranged that they fold flush into recesses so that four persons a side can be accommodated if necessary. A single luggage rack is mounted above the seats. Blinds for the large windows and compartment corridor windows are of fireproof fabric.

The fittings generally follow the same standards in both types of vehicle. Provision is made for tables, two of which are stored in the vestibule. Frameless mirrors are fitted above the seats, and a small table below the window. Lighting is by means of two ceiling lights, which may be dimmed, and by four shoulder lights each with a separate switch.

On brake vehicles, the separate guard's compartment is equipped with a desk and cupboard unit, a food warmer unit, steam heater, and a swivel padded seat, from which the guard with the aid of a periscope can see along the roof in both directions.

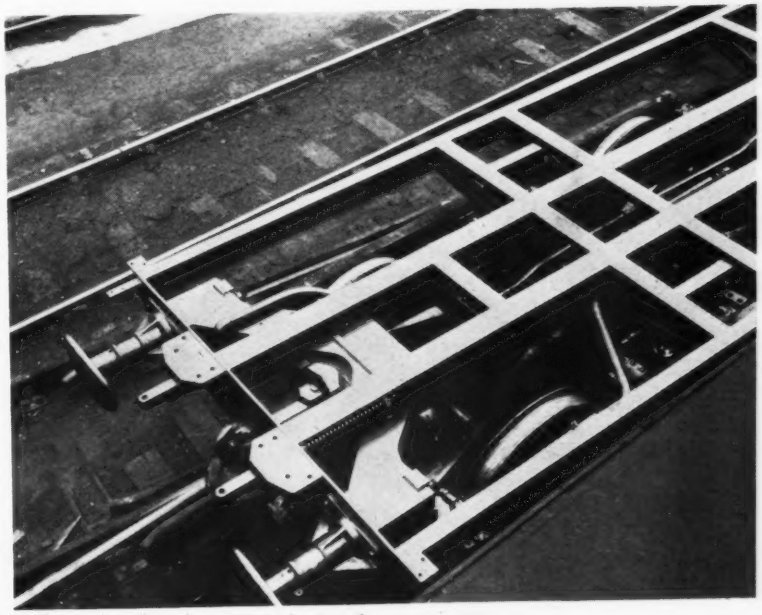
The luggage compartment in the composite vehicles is of interest as the partition on the corridor side is made of wire mesh with sliding doors. The whole compartment can be locked and is under the observation of the guard.

Apart from the normal corridor stock, four types of open vehicle will be used. Two of these, one first and one third, will have separate chair type seats, for use as a dining car in conjunction with a separate kitchen car. The remaining two will have fixed seats, and will be used either as dining cars (particularly for services where passengers will be allowed to retain their seats throughout the journey) or at other times as ordinary corridor stock supplementing the compartment type.

The loose chairs are of timber construction finished to match the decorative panels. The seat fillings are sponge rubber covered in moquette. The fixed seats have fillings of wire mesh and spiral springs. Lighting in this type of coach is by 60 watt lamps in Holophane ceiling fittings; 15 watt lamps in bodyside fittings over each table also are provided. The general design of the kitchen cars follows all other vehicles, but the bogies have been suitably strengthened to allow for the heavier vehicle.

The principal feature of these vehicles is the use of anthracite/electric cooking equipment. The electrical supply for all purposes is provided by two 110V. 10kW. axle-driven generators. The anthracite cooking ovens, of which there are six, each consume from 30 to 40 lb. of fuel in a normal day. Special attention has been paid to the provision of a hygienic interior finish; plastic panels have been used for that purpose. Ventilation is by sliding ventilators in all windows and by five extractor fans in the roof. A separate compartment and lavatory is available for the staff and the provision of eight private wardrobes completes the equipment.

(*Continued on page* 300)



Buckeye, buffing, and drawgear

XUM

British Railways Standard Coaches

First class dining car used in conjunction with a separate kitchen car

Kitchen car fitted with anthracite/electric cooking equipment

4-6-2 Locomotives for Queensland

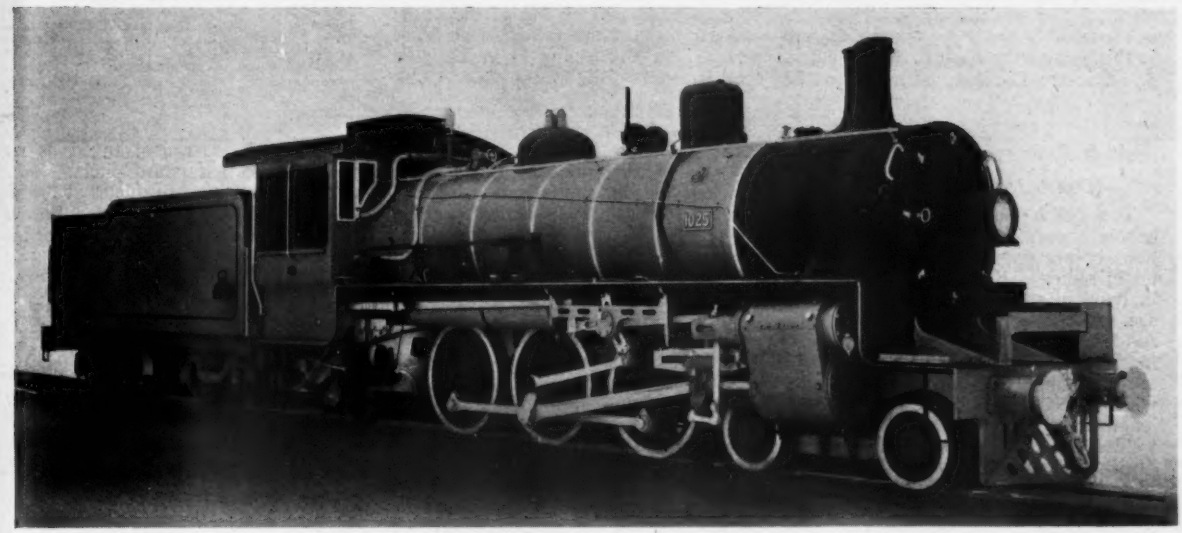
Thirty-five 3 ft. 6 in. gauge engines for mixed-traffic service

NOW under construction at the works of the Vulcan Foundry Limited, Newton-le-Willows, are 35 mixed-traffic "B18¼" class locomotives for the 3 ft. 6 in. gauge section of the Queensland Government Railways. An original order for 20 of these locomotives placed with the Vulcan Foundry in 1948 was subsequently increased to 35. While the engines have been designed for mixed-traffic operating, they will be employed mainly for passenger working.

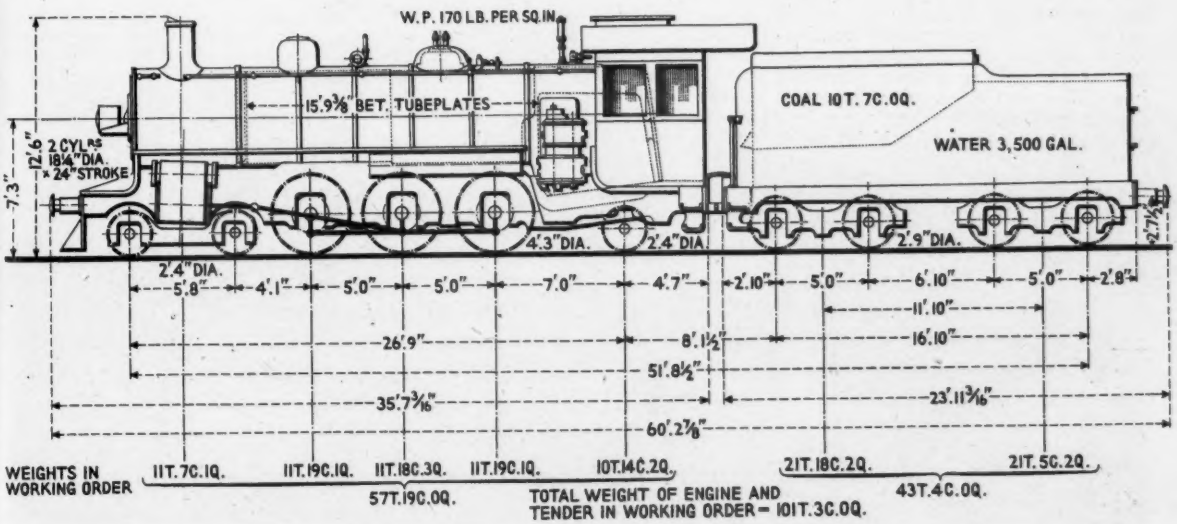
These locomotives are a modern version of engines of the "B18¼" class previously built by the railway. On the instructions of Mr. V. Hall, Chief Mechanical Engineer, Queensland Government Railways, various new features have been embodied. These include increased piston valve travel, side-bearer type spring-controlled engine bogie, roller-bearing axleboxes on all axles, SCOA-P type wheels, and increased tender coal and water capacity. The locomotives are being built to the inspection of the Resident Engineer, Mr. J. A. Baxter, Queensland Government Railways.

The engines are designed to suit a maximum coupled axleload of 12 tons and to negotiate a minimum curve of 330 ft. The locomotive frames are of rolled-steel plate, which carry the smokebox and boiler through a saddle casting at the front end, and outer frames are provided to support the expansion angles fitted on the firebox sides. These are jointed to the main frames in front of the throat plate by means of a deep pressed-steel stretcher, the main and outer frames being continuous from the throat plate to the engine hind buffer beam.

The coupled springs are over the axleboxes and form one compensated group with the trailing truck which is of the radial arm type. The front bogie is of the side-bearer type, spring controlled, and is generally similar to those fitted on Indian Railways metre-gauge engines built by the Vulcan Foundry



Queensland Government Railways 4-6-2 locomotive



Principal weights and dimensions of the locomotive

during the past few years. Westinghouse No. 6-ET brake equipment operates the compensated engine brake gear and is also used for tender and train braking.

The Walschaerts valve gear is generally similar to that fitted on the original "B1 8¼" class engines, but the cylinders have been redesigned to give improved steam flow through shortened passages, and two narrow ring, light type, piston valves replace the original heavier valves which were fitted with wide rings; the valve travel has been increased from 4¼ in. to 5½ in. The connecting rod small ends and the coupling rods are fitted with fixed phosphor-bronze bushes, and the connecting rod big ends are fitted with phosphor-bronze floating bushes, while Skefko roller bearings are provided for the eccentric cranks, engine, and tender axles.

All the rotating, and 35 per cent. of the reciprocating, weights are balanced in the solid balance weights of the cast-steel coupled wheel centres. These are of the latest SCOA-P type manufactured in this country by K. & L. Steelfounders & Engineers Limited, licencees to the patentees, the Steel Company of Australia Pty. Ltd.

The boiler second barrel is slightly coned and fitted with a round top firebox, having an all-welded inner firebox supported at the sides, back and throat plates with rigid-steel stays riveted over on the inside of the firebox and seal welded. Rigid steel crown stays with taper threads are also used for supporting the firebox roof, except for the first two rows at the tube plate, which are of the flexible type

Hulson rocking-grate firebars are operated from the cab, and the all-welded double hopper ashpan is provided with horizontal sliding ash dump doors actuated by an air cylinder. An M.L.S. superheater header with 21 elements and anti-vacuum valve are provided, and a Vulcan balanced type regulator is fitted in the dome.

Two Sellers "N" 9½ mm. improved injectors are horizontally mounted on the firebox inside the cab; the clack-boxes are situated on top of the boiler and are also of the railway's standard design. An Everlasting 1½ in. blow-off cock is fitted on the throat plate. Other fittings include Dewrance type water gauges, Ross pop safety valves, and a Detroit three-feed S.F. five-pint capacity lubricator which supplies oil to cylinders and piston valves.

The first 20 engines are fitted with Pyle National electrical equipment which includes headlights and cab lighting. Stone's electrical equipment is fitted to the remaining locomotives. The tender tank is of welded and riveted construction.

The principal dimensions are:—

Cylinders (2)	18½ in. × 24 in stroke
Leading bogie wheel, dia.	2 ft. 4 in.
Coupled wheels, dia.	4 ft. 3 in.
Trailing truck wheel, dia.	2 ft. 4 in.
Heating surface:—	
Boiler tubes (119), 2 in. dia. ...	984 sq. ft.
Flue tubes (21), 5 in. dia.	434 sq. ft.
Firebox	106 sq. ft.
Total evaporative	1,524 sq. ft.
Superheater	334 sq. ft.
Grate area	25 sq. ft.
Boiler pressure	170 lb./sq. in.
Tractive effort at 80 per cent. boiler pressure	21,306 lb.
Adhesive weight	35·86 tons
Engine weight in working order ...	57·95 tons
Tender, coal capacity	10·35 tons
Tender, water capacity	3,500 gal.
Tender, bogie wheel dia.	2 ft. 9 in.
Tender weight, fully loaded	43·2 tons
Total engine and tender weight in working order	101·15 tons

British Railways Standard Coaches

(*Concluded from page* 297)

The coach bodies are designed to enable them to be assembled in sections before complete assembly on the underframe. The bodyside framing is built up in sub-assembly jigs and these are subsequently fabricated to form a full-length bodyside in one unit. Framing members are fabricated by metallic arc welding. The bodyside panelling, which is welded into a complete coach length on a semi-automatic carbon arc welder, is then attached to the framing on a skinning jig by welding, the complete bodyside being dealt with at one operation. The body ends are assembled in similar manner.

The roof is assembled as one complete unit on a suitable jig and all framing members are fabricated by metallic arc welding. The roof panels are afterwards attached to the framing members by the arc welding process while still in position on the jig. One important feature of the roof design is that it is common to all types of vehicles so far dealt with. To carry out the general assembly of the body, reference jigs are mounted on the underframe, and the two coach sides are suspended on these jigs in position for welding to outrigger plates attached to the underframe solebars. The ends are then brought from their assembly jig and mounted in position.

The final operation is the fixing of the complete roof, which is first secured to the bodysides by location bolts, the final attachment being made by riveting which is carried out by pneumatic toggle riveters. To facilitate this type of assembly, the cant rail has been designed in two sections, one of which is attached to the roof assembly and the other to the bodyside assembly, the two sections being riveted together on assembly.

The interior bodyside and end finishing panels are attached to the pressed-steel body framing by means of hard-wood fairings; these are attached to the framing by means of bolts or studs and the latter are stud welded direct on to the pillars and rails. These are arranged as far as possible to a standard pitch.

The construction of vehicles at British Railways workshops, as stated in our issue of December 1, 1950, will be distributed as follows:—

Doncaster	55
Derby	325
Eastleigh	140
Swindon	60
Wolverton	130
York	116

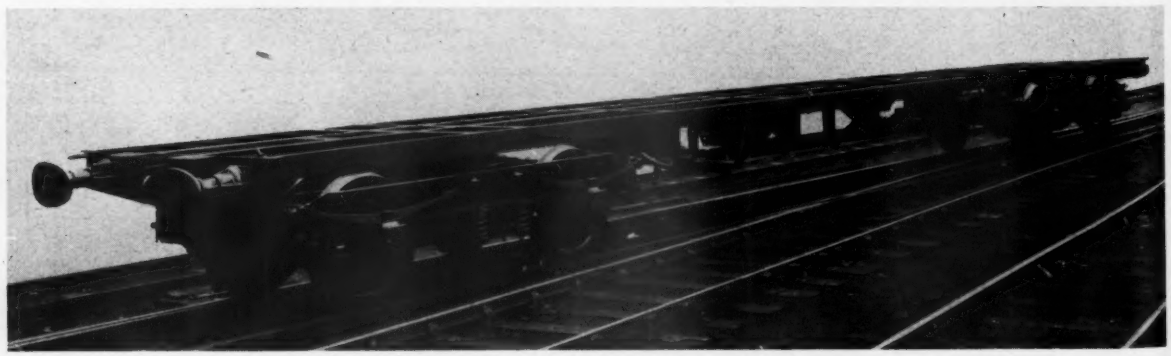
and at the same time the following contracts have been placed by the Railway Executive in connection with carriage programme for 1951:—

Birmingham Railway Carriage & Wagon Co., Ltd.: 65 corridor third class carriages; 17 open first class carriages; 70 composite non-vestibule first and third class carriages.

Cravens Railway Carriage & Wagon Co., Ltd.: 15 corridor third class open carriages; 40 corridor composite carriages; 20 fruit vans.

Metropolitan Cammell Carriage & Wagon Co., Ltd.: 206 first and third class composite corridor coaches; 20 first and third class brake composite corridor coaches.

R. Y. Pickering & Co., Ltd.: 30 non-vestibule non-corridor composite brake carriages; 15 non-corridor third class brake carriages.



Underframe designed to take buffing loads of 200 tons both on the centre coupler and on the retractable side buffers

Aluminium Deck Protection for a U.S.A. Bridge

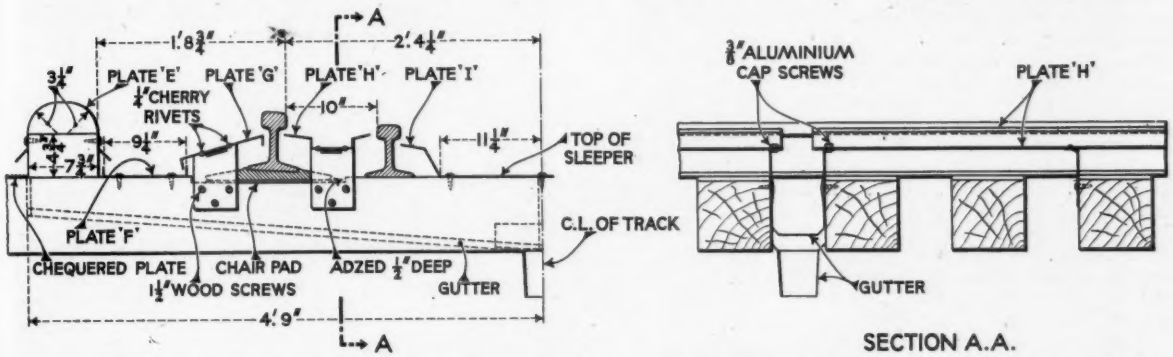
More than 77 miles of aluminium sheets are used to protect tracks and steelwork of a Mississippi bridge from fire and corrosion

WHEN the 4½-mile Huey Long double line bridge over the Mississippi was completed in 1935 at a cost of $13,000,000 by the New Orleans Public Belt Railroad—for the use of the Southern Pacific, Missouri Pacific and associated lines—its deck was protected from fire and corrosion with galvanised steel plates. In recent years these plates became seriously corroded, and, after tests spread over a period of four years, it was decided to replace them by an elaborate system of ·064-in. and ·081-in. Alclad 4S aluminium sheets, pressed into five different sectional shapes.

Each of the two tracks over the bridge has steel guard rails between the running rails and 10 in. from them, and also timber guard rails outside the running rails. Apart from the heads of the running and steel guard rails, the 8·7 miles of track are completely covered by nine rows of aluminium sheets, as shown in our illustrations. The sheeting of various sections is in 8 ft. 2 in. lengths, each sheet having an 8-ft. effective length and 2-in. overlap, and being sufficiently light to be handled easily by one man.

The sheeting was so designed that it could be installed entirely with unskilled labour. The only cases in which it is necessary to saw the sheets to reduce their length are (*a*) due to the long curves on the bridge approach viaducts, and (*b*) where the normal distance of 120-ft. between the cross drainage trough gutters—shown in the drawing reproduced—and the expansion joints, has to be altered. The five different shapes of sheet or plate are shown in the half-section of track drawing, from which it is also clear how they are fixed. Though the total length of sheeting involved is over 77 miles, most of it is little more than $\frac{1}{16}$ in. thick. The total weight of aluminium is, however, about 225 tons, including sheets, drainage troughs or guttering, supports and fittings.

In October, 1949, a preliminary length of 400-ft. of the new protection was installed on the bridge, as a trial to test the suitability of the design and proposed methods of installation. Actual reconstruction began in January, 1950, after the running rails had been cropped and welded into 1,000-ft. lengths. The steel guard rails were first removed, and the screws securing the old plating were loosened. The running rails and their bearing plates were then slewed aside (*a*) to enable the sleepers to be mech-



Left: Half-section of track with the five shapes of sheeting or plates fixed in place. Right: Section through AA showing drainage trough between sleepers, and sheet H resting on chairs

The Huey Long Bridge over the Mississippi, with western approach in foreground

anically re-adzed—so as to remove all damaged timber and ensure level bearing surfaces—and (*b*) so that the drainage troughs could be fitted at intervals between the sleepers. The tops of the sleepers were next coated with an ashpalt mastic, and the rails and bearing plates were replaced on bearing pads ⅛-in. thick.

After the removal of the old plating, a reasonable length at a time, the dished sheeting I (plate I in the drawing) was first screwed down to the sleepers between the steel guard rails, to provide some fire protection as early as possible.

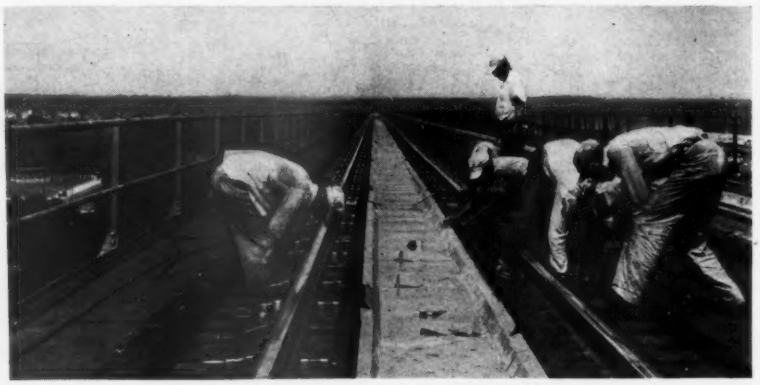
Chair Supports

The next stage of the work was the fixing of the small supporting chairs on each side of each running rail to carry sheets (plates) G. and H. Both these rows of sheeting have to be easily removable to enable the rail and sleeper fittings to be inspected and maintained. Each G. or H. sheet is supported by four chairs, and as it is 8 ft. 2 in. long and the sleepers are spaced at 1 ft. 4 in. centres it covers six sleepers. It is secured to the two outer chairs with aluminium cap bolts, but it has clips on its under side into which arms of the two inner chairs slide. The G. sheets are the only sheets that are ·081-in. thick, all others being ·064.

The sheets in row H. are also dished and have unequal flanges, the ends of which extend almost to the under sides of the running and guard rail heads, and thus protect the entire 10-in. gap between them. The G. sheets or plates are inclined so as to drain away from the running rail into the F. sheets, which, are next screwed down to the sleepers. Finally, the inverted U-shape sheet E, covering each outer wooden guard rail of each track, is fitted and fixed. All this work is carried out with the aid of pneumatic drills, screw-drivers and other tools.

During the eight working hours, possession is obtained of one track at a time, and during the remaining 16 of the 24 hr., both tracks are left free for normal traffic, which therefore suffers a minimum of interference. Regular track and bridge gangs are used on this work, according to an article in the December 9, 1950, issue of our contemporary *Railway Age*, based on information given by Messrs. E. J. Garland and E. L. Mire, General Manager and Chief Engineer, respectively, of the New Orleans Public Belt Railroad. We are indebted to that journal for the foregoing details and the illustrations.

Original galvanised steel plate protection in foreground and new aluminium sheeting in background



Small chairs for sheets G and H being fixed. Continuous row of I sheets already installed

---

LONDON TO BIRMINGHAM HELICOPTER SERVICE.—It is announced by the Ministry of Civil Aviation that after March 31 the Cardiff-Liverpool service of B.E.A. will no longer be operated by helicopters. A service with fixed wing aircraft will be substituted and will be run by Cambrian Air Services under an agreement with B.E.A. as part of a London-Cardiff-Jersey route. In order to obtain further data on helicopter services under different traffic conditions, a daily passenger service between London and Birmingham will be opened by the B.E.A. helicopter unit early this summer and will continue into the winter.

THE CANADIAN INTERNATIONAL TRADE FAIR, 1951.—A number of trade associations in Britain are organising displays for the Canadian International Trade Fair to be held in Toronto from May 28 to June 8. Among these the machine tool industry, whose stand was one of the outstanding features of the exhibition in 1950, will have a display covering approximately 32,000 sq. ft., while the industrial truck equipment group will show the products of six manufacturers of industrial trucks. The mechanical handling group comprises four firms capable of manufacturing and installing conveying and other equipment for many needs. Besides the large exhibits organised through trade associations there will be numerous displays by individual manufacturers from a wide range of industries. The amount of space booked to date by United Kingdom exhibitors through the Canadian Government in London is over 60,000 sq. ft., excluding space booked by manufacturers through Canadian agents.

TUBE INVESTMENTS LOW ACCIDENT RATE.—At the half-yearly meeting of safety officers of Tube Investments Limited and representatives of works safety committees on March 7, it was stated that the rate of reportable accidents in 1950 was 56 per cent. lower than in 1944. This meant that 97 out of every 100 employees were entirely free from a reportable accident, and that each employee would have only one reportable accident in every 34 years. There had been a steady reduction of accidents in each year. Trophies were presented by Mr. Norman Lancaster, an Assistant Managing Director of the firm, to subsidiary companies which had achieved the largest percentage half-yearly decrease compared with their own average over the previous two years, and a special trophy was awarded to the company which, during the past four years, had in each year improved its own record by a higher average percentage than any other company.

VESSEL FOR KYLE OF LOCHALSH-KYLEAKIN SERVICE.—To improve facilities for the conveyance of passengers and vehicles between the mainland and the Isle of Skye another vessel is being placed in service in the Scottish Region of British Railways for ferry work between Kyle of Lochalsh and Kyleakin. This new vessel, mainly intended for the transport of vehicular traffic, will be equipped with a turntable taking an 8-ton load, with space for two motorcars or one lorry, and when engaged on vehicular work will also have limited accommodation for passengers. When used for passenger ferrying she will carry about 100 passengers on each trip.

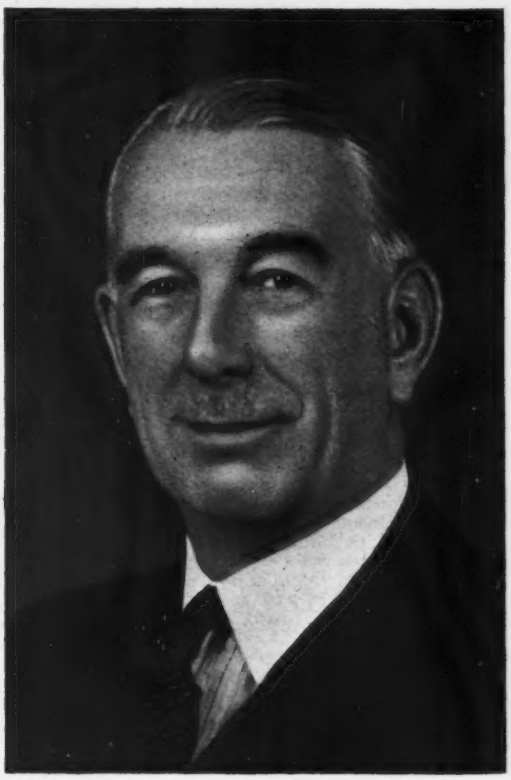
RAILWAY NEWS SECTION

PERSONAL

Mr. R. A. Saunders-Jacobs, Chief Engineer of the East Indian Railway, has retired.

Mr. H. E. Stokke, who, as recorded in our February 9 issue, has been appointed Director General of the Norwegian State Railways, is a former Mayor of Oslo. After holding a number of public positions, he became Counsellor in the Ministry of Public Works in 1945, and Personal Secretary to the Minister of Communications in the following year. In 1947 he became Under-Secretary of State for Communications and he was elected Mayor of Oslo in 1948. On the occasion of his fiftieth birthday on November 20, 1950, Mr. Stokke was awarded the King's Gold Medal of Merit.

Mr. H. E. Stokke
Appointed Director General, Norwegian State Railways



Mr. J. W. Watkins
Appointed Chief Regional Officer, London Midland Region

RAILWAY EXECUTIVE APPOINTMENT

The Railway Executive has appointed Mr. H. Aidley, Assistant (Wages Staff), Regional Staff Office, London Midland Region, Euston, to the post of Executive Officer (Operating Staff), Railway Executive Headquarters.

General Sir Hubert de la Poer Gough has been appointed Chairman of Siemens Brothers & Co. Ltd. in succession to the late Dr. Henry Robert Wright. The Earl of Gowrie has been appointed Vice-Chairman and Mr. Francis A. Lawson has been appointed Managing Director of the company.

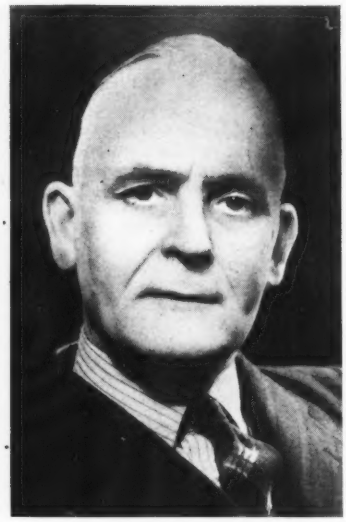
Mr. M. Kanagasaby, General Manager, Ceylon Government Railway, proceeded on 4½ months' leave on February 19, and expects to tour North India. Mr. A. B. Demmer, Operating Superintendent, is acting as General Manager, and Mr. H. R. Gunawardhana as Operating Superintendent.

Among those who left Liverpool for Canada on March 14 in the *Empress of France*, were Mr. D. J. Fourie, Catering Inspector of the South African Railways, and Mr. C. J. West, Assistant Foreign Freight Agent, Canadian Pacific Railway, Montreal.

Mr. Frederick Eli Corbin has been appointed a Director of Silentbloc Limited.

Mr. J. W. Watkins, D.S.O., M.C., Operating Superintendent of the London Midland Region, who, as recorded in our March 9 issue, has been appointed Chief Regional Officer, London Midland Region, comes from a family having long association with the former Midland Railway, with which his father served for 50 years. Mr. Watkins himself entered the service as a junior at Ashchurch in 1905, and gained all-round experience at several stations before enlisting in the Gloucestershire Regiment in August, 1914. Commissioned in the field, he rose to become Lt.-Colonel commanding the 2nd Battalion Lancashire Fusiliers, with which he served until wounded in May, 1918; he was awarded the D.S.O. and M.C., and was four times mentioned in despatches. On returning to the railway service in 1919, Mr. Watkins joined the headquarters staff of the Midland Railway at Derby, and held various appointments with that company and the L.M.S.R., becoming Divisional Superintendent of Operation, Derby, in 1942, and moving to a similar position at Crewe in 1944. In January, 1948, he became Acting Assistant Chief Operating Manager, London Midland Region; Assistant Operating Superintendent in July, 1948; and in October, 1948, was appointed Operating Superintendent, London Midland Region. Mr. Watkins takes a very active part in staff social and recreational matters, and presides over several such organisations in the London Midland Region. He is a Member of Council of the Institute of Transport.

Mr. William E. Newton, General Assistant to the District Commercial Superintendent, Lincoln, Eastern Region, who retired on March 3, joined the G.C.R. at Leeds in 1904, and in 1914 was transferred to the Chief Goods Manager's Office at Marylebone. Between 1915 and 1919 he served with the Royal Engineers (Transportation) in France and Belgium. Following various appointments in the Doncaster, Sheffield, West Riding, and Grimsby districts, he became Chief District Goods Clerk under the Port Master at Grimsby in 1939. Mr. Newton was appointed Assistant Fish Market Superintendent, Grimsby, in 1943 and later



Mr. S. C. H. Fossett

Appointed Carriage & Wagon Works Manager, York, North Eastern Region

Mr. E. O. Lloyd

Appointed District Goods Superintendent (London Suburban), Eastern Region

Mr. W. Brown

Appointed Assistant Accountant, Eastern and North Eastern Regions

became Assistant Fish Docks Superintendent. Since nationalisation he has been General Assistant to the District Commercial Superintendent, Lincoln.

Mr. S. C. H. Fossett, A.M.I.Loco.E., Carriage & Wagon Works Manager, Stratford, Eastern Region, who, as recorded in our March 2 issue, has been appointed Carriage & Wagon Works Manager, York, North Eastern Region, commenced his railway career as a premium apprentice at the Stratford Works of the G.E.R. in 1916. After a period in the locomotive drawing office he took charge of the train electric lighting department in 1926 and was appointed Assistant Carriage & Wagon Works Manager, Stratford, in 1929. From 1931 to 1940 he was Outdoor Carriage & Wagon Assistant at Kings Cross and shortly after being transferred to York as Assistant Carriage & Wagon Works Manager, he returned to Stratford as Carriage & Wagon Works Manager. After a period of service as Superintendent of Dukinfield Factory, under the Ministry of Supply, Mr. Fossett was appointed Assistant to the Docks Machinery Engineer, Hull, in February, 1946, and Principal Assistant Carriage & Wagon Works Manager, York, in October of that year. He was appointed Carriage & Wagon Works Manager, Stratford, in July, 1950, but due to the illness of the Works Manager at York, he was unable to take up the position. Mr. Fossett obtained a Whitworth Exhibition in 1922 and is an Associate Member of the Institution of Locomotive Engineers.

Funeral of Mr. A. H. Peppercorn

The funeral of Mr. A. H. Peppercorn, formerly Chief Mechanical Engineer, L.N.E.R., and British Railways, Eastern and North Eastern Regions, who died on March 3, took place at Cantley Church, on March 6. Those present, in addition to family mourners, included:—

Eastern and North Eastern Regions: Messrs. A. E. Robson, Carriage & Wagon Engineer, (also representing Chief Regional Officer, Eastern Region); J. F. Harrison, Mechanical & Electrical Engineer (also representing Chief Regional Officer, North Eastern Region); L. Reeves, Assistant Carriage & Wagon Engineer; G. C. Gold, Assistant Mechanical & Electrical Engineer.

Also among those present were: Messrs. J. Blair, Carriage & Wagon Engineer, London Midland Region; G. Hussey, Executive Officer, (Administrative & Special Duties), Railway Executive (representing Mr. R. A. Riddles); M. R. Bonavia, Principal Works & Development Officer, British Transport Commission (representing Chief Secretary, British Transport Commission, and Secretary, Hotels Executive); A. R Ewer, District Motive Power Superintendent, Doncaster (representing Colonel H. Rudgard and Mr. L. P. Parker); A. S. Railston, Assistant Commercial Superintendent (Mineral), Eastern Region.

Mr. E. O. Lloyd, Assistant District Goods Superintendent (London Suburban), Eastern Region, who, as recorded in our March 2 issue, has been appointed District Goods Superintendent (London Suburban), was educated at Trinity Grammar School, Wood Green, and entered the service of the G.N.R. in the Goods Manager's Office in 1910. He was L.N.E.R. Freight Representative in New York from 1929 to 1933, and became Chief Clerk in the District Goods & Passenger Manager's Office, Ipswich, in 1933. In 1936 he was appointed Chief Canvasser, District Goods Manager's Office, Manchester. From October, 1943, until October, 1944, he was Acting Assistant to District Goods Manager, Leeds, and between October, 1944, and November, 1945, he was Acting Assistant Goods Manager, Leeds. Mr. Lloyd was appointed Assistant District Goods Manager (London Suburban), Hertford, in 1946 and became Assistant District Goods Superintendent (London Suburban), Hertford, in April, 1950, when the post was redesignated. The office of the District Goods Superintendent (London Suburban) was transferred from Hertford to Gordon Hill in June, 1950.

Mr. W. Brown, Senior Assistant to Director of Accounts, British Transport Commission, who, as recorded in our February 16 issue, has been appointed Assistant Accountant, Eastern and North Eastern Regions, British Railways, joined the L.N.E.R. in the Accountant's Department at Manchester in 1920. He went to London in 1929 to join the staff of the Accountant, and in 1937 was selected for special training under the Accountancy Apprenticeship scheme; on completion of his training, Mr. Brown was appointed Assistant Secretary of the L.N.E.R. Superannuation Fund on its inception in 1939. He joined the Royal Artillery, in August, 1941, but subsequently transferred to the Royal Engineers and was demobilised in May, 1946, with the rank of Captain. He was appointed Assistant Locomotive Accountant (N.E. Area) in July, 1946, and in March, 1948, went to Scotland to take up the position of Assistant Regional Accountant. Later in the same year he was appointed Senior Assistant to Director of Accounts, British Transport Commission. Mr. Brown is a Chartered Secretary and a Brunel Medallist.

Funeral of Mr. Edgar Alcock

The funeral of Mr. Edgar Alcock, Chairman & Joint Managing Director of the Hunslet Engine Co. Ltd., who died on March 2, took place at Lawnswood Crematorium on March 7, after a service at Leeds Parish Church, which was conducted by Canon A. S Reeve, Vicar of Leeds. Among those present were:—

Messrs. J. F. Alcock, Joint Managing Director, and R. Simpson, Secretary, Hunslet Engine Co. Ltd.; Brian Reed; W. W. W. Clayton, Chairman & Managing Director, Hudswell, Clarke & Co. Ltd.; P. Crabtree, and T. Pythian, R. W. Crabtree & Sons Ltd.; G. Birdsell, Hudswell, Clarke & Co. Ltd.; Mr. McLagan and Mr. Forbes, Greenwood & Batley Limited; Messrs. K. C. Banks, Yorkshire Engine Co. Ltd.; G. A. Napier, Institution of Locomotive Engineers; R. Raisbeck, and J. Baker, Joseph Booth & Brothers; F. H. Flood, Works Manager, and G. Benny, Secretary, John Fowler & Co. Ltd.; H. Loxton, Chairman, Hill Brothers Foundry Ltd.; R. Butler, Chairman & Managing Director, Kirkstall Forge Engineering Limited; F. N. Iley, Robert Stephenson & Hawthorns Limited; F. E. Hudson, Robert Hudson Limited; Jonas Woodhead, Jonas Woodhead & Sons Ltd.; Mr. Robson and Mr. Page, Fairbairn Lawson Combe Barbour, Limited; Major W. Berry, Chairman & Managing Director, Henry Berry & Co. Ltd.; Major Robinson, Yorkshire Copper Works Limited.

The late Sir W. Reardon-Smith, Bt., who was a prominent shipowner and a former Director of the Great Western Railway Company, left (duty paid £284,383) £385,042.

Institution of Locomotive Engineers Annual Luncheon

Mr. Alfred Barnes on the future of rail transport and the success of the Liverpool Street—Shenfield electrification

The annual luncheon of the Institution of Locomotive Engineers was held at the Dorchester Hotel, Park Lane, on Friday, March 9. Mr. R. A. Riddles, President of the Institution, and Member, Railway Executive, was in the Chair.

Mr. Alfred Barnes, Minister of Transport, who proposed the toast of "The Institution," said that his pleasure in attending the function was heightened by his regard for the President, with whom he had been associated for some years. A technical body like the Institution of Locomotive Engineers represented an integral and vital part of the industrial and commercial power of the country. In this engineering age, when none could really assess the contribution of the engineer to the British way of life, the Institution had played its part in keeping the country abreast of engineering development.

Few things had influenced the people of this country as much as transport and in the history of Britain there were two great factors which had contributed to modern development. These factors were coal and its application to steam engineering and they had been instrumental in the building up of railways in Britain and railway pioneering work throughout the world.

He often heard the question discussed as to whether the time of the railway had passed, but his considered opinion as an individual who had no predispositions about any one form of transport, was that the period of the railway had not come to an end; indeed, that there was a greater future ahead.

For a century the railways had had a complete monopoly and this state had resulted in the railways settling down to certain conditions with inherent dangers for the future. The impact of road transport had come and railway financial results today were not as encouraging as in many other forms of engineering. Given favourable economic, political and international conditions, though, there could be a complete transformation of rail transport.

In his lifetime he had witnessed two important events. The coming of London Transport was a sensible example of integration between two forms of transport and there had been large scale investment of capital in both road and rail services. He had also seen electrification transform the Southern Railway from a relatively indifferent undertaking into one of the best railways in Britain.

Shenfield Electrification

Referring to the road transport problem, he said the cost of new roadways through cities was too colossal to contemplate and if possible an alternative must be produced. East of Liverpool Street, where a main-road ran parallel with the old Great Eastern main line for some 15 miles, road travel had become almost impossible during the rush hours. Since electrification of the railway to Shenfield, however, loaded-coach train-miles had increased by 33 per cent., the number of passenger journeys by 49 per cent., and the passenger receipts by 42 per cent. The cost of the scheme was £8,000,000 and it contained a great lesson for people in this country. He was confident that when other great urban areas had been electrified, much of the traffic lost to the roads would be won back.

Mr. Riddles, responding to the toast, welcomed the guests on behalf of the Council of the Institution. He said he was particularly pleased to welcome his old Chairman, Sir Eustace Missenden. He wished best success to Mr. John Elliot in the tremendous task he had undertaken. Mr. Barnes had conferred a great honour on the Institution by his presence. Commenting on the present period of change, he said that whenever the efficient working of railways was under consideration, the question of alternative forms of motive power was raised. In the case of all known forms of motive power, however, the problem of their application was mainly economic.

Transport Problems

Sir Archibald J. Boyd, Chairman of the Carriage & Wagon Builders' Association, in proposing the toast "The Guests," said that it was appropriate that the principal guests should be from the British Transport Commission, Railway Executive, and London Transport Executive and that it should include Chief Regional Officers from British Railways, as they were the users of products of the Institution. As travellers, many of those present might criticise the transport services, but they knew the difficulties of those running transport and they must be co-operative. They were concerned, as members of a technical institution, with improvements in design which would keep down cost and their aim was to produce for transport users more efficient and more economic tools.

He said that Mr. Barnes was regarded with great affection by those connected with transport. They were pleased to welcome Sir Eustace Missenden, the past Chairman of the Railway Executive, and his successor, Mr. John Elliot, who had gone in to bat on a very sticky wicket. It had been to the benefit of the country when Sir William Slim had become Chief of the Imperial General Staff, but it had been a great loss to the Railway Executive and he was much missed there. Lord Latham, who carried a great burden, was the Chairman of an organisation envied throughout the World. He regretted that Mr. F. A. Pope was unable to be present, but was delighted that he was returning to this country.

Mr. John Elliot, in reply, made a humorous speech, and concluded by expressing appreciation of the hospitality the guests had received.

Mr. Riddles, introducing Mr. J. S. Tritton, the President-Elect, said he was the illustrious son of an illustrious father. He was a Senior Partner of Messrs. Rendel, Palmer & Tritton and his association with India and elsewhere would be a great value both to the Institution and to Britain.

Mr. Tritton, in response, said that in the coming year, the Institution would do everything possible to further technical advancement on the railways.

Among those present were:—

Messrs. N. L. Ablett, F. W. Abraham, E. Adams, J. L. Adamson, W. A. Agnew, W. Aish, T. J. Aldridge, J. F. Alcock, L. B. Alexander, E. L. Allen, W. P. Allen, E. Allsop, G. K. Ambady, H. Andrew, B. W. Anwell, J. C. Ansaldo, S. Appleyard, R. Arbuthnott, S. V. Arnold, W. J. Ash, R. M. Atkinson.

Messrs. H. B. Bailey, E. W. Baker, F. J. Bance, Alfred Barnes, D. S. M. Barrie, V. M. Barrington-Ward, T. W. Barron, W. J. Bassett-Lowke, R. Bate, G. H. Batty, A. H. Baughan, A. E. Beacham, F. H. Beasant, P. C. Beastall, J. M. Beazley, J. E. Beckett, R. A. Beckett, G. V. Beesley, Miles Beevor, A. R. Bell, J. Bell, M. A. H. Bellhouse, J. P. Bennett, J. Benstead, Colonel F. Biddulph, Mr. L. Bigg-Wither Colonel S. J. Billett, Messrs. C. K. Bird, C. N. Blakeney, H. Blackstone, G. Blattman, D. Blee, R. B. Blood, R. W. Boardman, A. B. Boath, R. C. Bond, R. P. Bower, Sir Leslie Boyce, Sir Archibald Boyd, Messrs. G. B. Bradshaw, T. W. Bragg, J. Briggs, G. C. Brinkworth, Lt.-Colonel P. Brooke-Hitching, Messrs. W. Brooks, D. C. Brown, D. F. Brown, Admiral Sir Harold Brown, Messrs. C. E. Broxup, E. Bucklow, C. Bullard, O. V. S. Bulleid, A. J. F. Bunning, H. Burley, M. G. Burrows, D. C. Burton, G. A. Busk, R. Butler.

Messrs. N. G. Cadman, A. Campbell, J. D. Campbell, W. M. Cann, G. Carr, H. R. Carver, D. Carvill, J. Cave, E. E. Chapman, M. R. Chapman, A. T. Cheesley, T. E. Chrimes, J. M. Chrystal, H. E. Clark, S. T. Clayton, C. F. Cleaver, A. S. Clegg, F. G. Clements, J. Clubley-Armstrong, R. Cobb, C. M. Cock, D. Cockburn, C. S. Cocks, G. C. Cocks, K. Cole, F. H. Colebrook, T. F. Coleman, A. F. Collins, C. A. Compton, J. N. Compton, A. E. Cook, J. Cook, B. W. C. Cooke, D. F. Cooper, J. Cooper, R. S. Cooper, L. G. Copestake, S. E. Coppen, A. G. Corrie, P. Corrie, R. Corrie, N. H. Courpalais, H. P. R. Coveney, E. S. Cox, K. A. Cox, Lt.-General Sir K. N. Crawford, Messrs. H. W. Crosthwait, B. Curl, R. Curl, J. B. Curry.

Mr. A. C. C. Damant, Captain H. M. Dannatt, Messrs. S. C. Davey, A. S. Davidson, A. L. B. Dawson, D. Dawson, A. J. Day, L. E. Day, H. Davies, S. A. Davis, L. T. Dawes, A. Dean, H. E. Dean, C. E. Dee, D. M. Denholm, J. C. Dennis, F. Dickson, V. F. Dittrich, W. H. Dixon, K. S. Dobson, J. P. A. Drewry, W. L. Drummond, R. G. Duncan, R. Dunn, F. L. Dunster, E. R. Durnford, D. C. Dyball, J. Dykes-Hutchison, R. A. Dyson.

Messrs. E. R. Edwards, H. N. Edwards, John Elliot, F. O. Ellis, Colonel G. E. Embleton, Messrs. H. O. Ernst, R. P. Evans, Lt.-Colonel H. B. Everard, Messrs. C. A. Everitt, C. M. Fairchild, W. Featherstone, W. Featherstone, J. A. Ferguson, A. L. Fielding, G. A. Fitch, L. Flatt, Dr. R. L. Fleming, Messrs. R. E. Fordham, I. C. Forsyth, S. C. H. Fossett, A. Fossey, H. C. Foster, F. C. Fox, R. W. Foxlee, A. E. Frost.

Messrs. W. Galloway, R. J. Garrod, J. Gatto, Commander H. V. Gaud, Messrs. H. F. S. Gedge, A. J. Gibson, J. L. Gilbert, J. Giles, J. Gillieaux, I. Gillett, T. Gillett, W. Gilmour-Smith, R. K. Glascodine, A. Gloster, G. E. Godfrey, G. T. Godfrey, G. C. Gold, J. H. Golding, A. P. Goodman, W. S. Graff-Baker, A. H. Grainger, K. W. C. Grand, R. Grant, R. T. Gray, E. W. Greaves, H. Green, H. M. Greenwood, H. M. K. Greenwood, T. Greenwood, H. Gresham, J. H. Gresham, S. R. Gresham, R. Gresley, J. R. Grimsdell, R. H. Gummer.

Messrs. N. Haddon, D. W. Hadfield, D. G. Haigh, E. Hale, T. O. M. Halliday, J. P. Hampshire, J. Hannah, L. Hansen, E. W. Hanslip, F. D. M. Harding, L. W. Harding, J. F. Harrison, D. Harsley, G. T. Hart, R. F. Harvey, G. V. Harvey, C. A. F. Hastilow, M. S. Hatchell, C. G. Hatherly, G. Haughton, C. W. Hawley, H. J. Heagerty, W. H. Helms, A. Henderson, H. M. Henderson, N. B. Henderson, F. A. Hewson, R. S. Hex, P. R. Hickman, A. Himsley, A. E. Hoare, D. G. Hodges, R. B. Hoff, H. R. Hogben, S. Hogg, H. Holcroft, H. H. Holloway, A. G. Hopking, C. P. Hopkins, W. Hopkinson, T. Hornbuckle, W. G. Hornett, H. Hoskins, Lt.-Colonel R. C. Hoult, Mr. F. A. Howard, Colonel. W. H. Howlett, Messrs. E. P. Hubbard, H. J. Hulme, J. S. Hunter, G. S. Hussey, C. Hutton, W. H. Hyde.

Professor M. Igel, Messrs. A. C. Illston, E. Ingoldby, J. W. Innes, A. B. Innes-Dick, H. G. Ivatt, A. Jacob, G. E. R. Jarman, F. H. Jefford, F. E. Jobson, A. Johnson, H. G. Johnson, J. D. Johnson, N. Johnson, J. J. Johnston, E. L. Jones, W. G. Kefford, W. Kelway-Bamber, E. Kent, A. Kenyon, J. Kershaw, G. Kettlewell, G. Key, Colonel C. W. King, Messrs. A. J. D. Kitson, L. Kitson, W. H. Kitson, W. S. Knight.

Messrs. D. R. Lamb, R. L. Lamb, T. T. Lambe, A. Lamm, K. G. Lampson, Lord Latham, Messrs. W. T. Laverton, H. Lawton.

XUM

L. J. Le Clair, L. Ledger, R. H. Lee, K. H. Leech, G. A. B. Leishman, J. D. Lewis, M. Lewis, G. J. A. Lindenberg, A. B. Lloyd, E. E. Lloyd, J. H. P. Lloyd, M. Lloyd, R. E. Lloyd, Mr. Lord, Messrs. S. N. Loosen, E. D. Lottin, M. D. Lowndes, A. J. Lucas.

Messrs. A. B. Macleod, J. F. Magee, Colonel I. A. Marriott, Messrs. E. G. Marsden, G. C. Marsh, S. W. Marsh, A. N. Marshall, D. Marshall, E. K. Marshall, K. C. T. Marshall, V. M. Marshall, T. Marsland, E. W. Marten, J. R. Marten, F. G. S. Martin, O. Martin, F. Mason, T. W. Mason, D. C. H. Mathews, J. Maudslay, F. G. Maxwell, H. G. May, R. E. G. Mayhew, C. R. Mayo, H. Melhuish, L. Melhuish, J. H. Mennell, S. E. Merry, B. L. Metcalfe, C. L. Metcalfe, J. P. Metcalfe, R. Metcalfe, R. D. Metcalfe, N. H. Miller, P. Middlemas.

Sir Eustace Missenden, Messrs. W. Mitchell, W. J. Mitchelhill, E. R. Montague, W. J. Moodie, A. Moore, E. S. Moore, Dr. H. E. Moore, Messrs. J. W. Moore, F. H. Morfey, C. Morgan, E. J. Morris, N. H. Morris, W. H. Morton, C. W. Mossop, H. J. Moyses, F. Muncey, M. McAulay, J. McGuigan, O. S. McInery, J. R. Naisby, O. S. Naylor, R. Needham, G. H. Negus, R. E. Nelson, S. Newman, G. W. Newrick, N. Newsome, J. C. Nisbet, J. H. R. Nixon, O. S. Nock, Canon A. C. Norledge, Messrs. A. W. Norman, L. B. Norrish, L. E. Nunn, A. R. S. Nutting, W. R. Oaten, P. M. Otway.

Messrs. A. H. C. Page, P. F. J. Page, R. H. Parker, C. E. Parkes, S. E. Parkhouse, F. Parr, J. C. Patteson, G. H. Paulin, M. R. Pease, B. Percival, G. Pettigrew-Smith, C. Pierce, T. M. R. Pinkney, F. D. Pinto, F. D. Playford, J. Plunkett, D. C. Plyer, E. Pollard, S. T. Ponting, S. Potter, R. A. Powell, F. J. Pratt, C. Pritchard, E. Pugson, F. Rada, J. A. Rae-Smith, H. W. Ralph, G. H. Ramsden, K. B. Rao, G. S. J. Read, W. E. A. Redfearn, T. Reece, K. Reed, T. A. Reed, P. F. Reeves, J. D. Reid, W. Rhodes, W. Riddell, R. A. Riddles, Colonel G. Rigby, Messrs. J. L. Riordan, A. Rizk, H. E. Robarts, F. W. Roberts, E. Robertson, K. S. Robertson, E. A. Robinson, M. D. Robinson, A. E. Robson, L. G. B. Rock, J. R. Rohman, G. Rollason, F. B. Rose, F. W. Rowe, W. F. Rowlinson, H. A. Rudgard, Lt.-Colonel Harold Rudgard, Lord Rusholme, Messrs. R. T. Russell, W. J. Ruston, D. M. Ryan.

Messrs. A. C. E. Sandberg, L. I. Sanders, Major E. I. Scott, Messrs. F. Sedcole, E. W. Selby, C. A. Shepherd, F. E. Sheppard, T. H. Shields, G. T. Shoosmith, A. W. Shore, F. Shore, M. W. Shorter, L. Sibbit, W. Siberg, C. N. Silvester, A. W. Simmons, G. S. Simmons, R. A. Simmons, F. W. Sinclair, G. F. Sinclair, Field Marshal Sir William Slim, Messrs. A. D. Smalley, W. A. Smart, R. A. Smeddle, Cecil Smith, C. E. Smith, D. A. Smith, F. W. J. Smith, G. E. Smith, J. W. Smith, R. T. Smith, W. A. Smyth, H. S. Smythe, H. Somerville-Smith, A. H. Sommer, J. C. Spencer, F. L. Stafford, Sir William Stanier, Messrs. C. W. W. Stanley, R. T. Stedeford, J. Steele, R. D. Steele, G. J. Steer, C. I. Stevens, F. W. Still, T. Stockings, Brigadier J. Storar, Colonel L. H. Stowell, Messrs. D. T. Strain, H. S. Stubbs, J. Summers, W. B. G. Swayne, H. H. Swift, N. W. Swinnerton, Major-General G. S. Szlumper.

Messrs. A. F. Tabraham, P. N. Tarleton, G. H. Taylor, J. B. G. Taylor, Major E. W. Taylerson, Messrs. A. W. F. Taylerson, A. K. Terriss, J. W. Terry, F. Theakston, J. B. Thom, H. D. Thoms, G. Thomas, L. Thompson, W. T. Thompson, W. J. Tilling, Major E. B. Todd, Colonel W. L. Topham, Messrs. J. C. L. Train, W. G. Trett, J. S. Tritton, T. L. J. Tritton, E. M. Turnbull, A. E. Turner, Sir George Turner, Mr. H. L. Turner.

Messrs. G. Urwin, A. B. B. Valentine, Lt.-Colonel C. E. Vaughan, Messrs. J. W. Vaughan, J. F. B. Vidal, W. T. Vizer-Harmer, C. C. Waddington, C. C. H. Wade, W. J. Wakley, J. R. Walton, J. G. Want, S. B. Warder, W. W. Watkins, General Sir Daril Watson, Messrs. W. Watson, W. L. Watson, H. R. Webb, R. E. G. Weddell, M. Weiss, E. D. Wells, G. M. Wells, E. H. Westoby, W. W Weston, F. Seymour Whalley, F. M. G. Wheeler H. A. A. While, C. R. White, E. T. White H. B. White, S. I. White, W. H. White.

Messrs. R. H. Whitelegg, I. L. Whittingham, S. Wild, J. Willans, P. A. Willeard, W. Cyril Williams, H. Wilmot, A. G. Wilson, Lt.-Colonel G. R. S. Wilson, Major W. G. Wilson, Messrs. A. J. L. Winchester, G. F. Wix, F. H. Wood, Sir William V. Wood, Messrs. L. C. Woodhouse, D. G. Woodman, J. B. Woodman, C. S. Wordsworth, A. R. Wright, H. E. Wright, Captain T. S. Wynn, Mr. R. D. Young.

New Train Ferry for Harwich-Zeebrugge Service

Launch at Clydebank of "Norfolk Ferry"

A new ship for the British Railways wagon ferry service between Harwich and Zeebrugge was launched at Clydebank on March 8 at the yard of the builders, John Brown & Co. Ltd., and named *Norfolk Ferry* by Madame Delory, wife of Monsieur F. Delory, Director-General of the Belgian National Railways and Chairman of the Société Belgo-Anglaise des Ferry-boats and of the International Railway Congress Association.

The *Norfolk Ferry* is generally similar to the *Suffolk Ferry*, completed at Clydebank in 1947, which, with the *Essex Ferry*, now works the Harwich-Zeebrugge service. A distinctive feature is that the upper deck serves as a cover for the train deck. Four railway tracks are provided for freight wagons on a deck specially constructed to support the heaviest modern locomotives; these converge into two embarkation tracks at the after end of the vessel. The engines are of Sulzer diesel type, designed to maintain a service speed of 13 knots. The new vessel, which is twin-screw, has an overall length of 397 ft., breadth over fenders of 61 ft., and depth to upper deck of 35 ft.

At a luncheon after the ceremony, Mr. E. Mensforth, Director of John Brown & Co. Ltd., presented a spray brooch, as a memento of the occasion, to Madame Delory, who in reply wished good luck to the *Norfolk Ferry* and all who sailed in her, and presented an oil painting of Zeebrugge harbour for the vessel.

The Chairman of the company, Lord Aberconway, in proposing the toast of the new ferry, spoke of the co-operation between his company and British Railways and their predecessors, and stressed the importance of the links between Britain and Belgium provided by the Harwich-Zeebrugge service.

Madame Delory, wife of the Director-General of the Belgian National Railways, launching British Railways m.v. "Norfolk Ferry" at Clydebank

Regional Links with Shipbuilders

Replying to the toast, General Sir Daril Watson, Member of the Railway Executive, emphasised the importance of British Railways Continental services, and especially of the train ferries, where rail and sea activities meet. The peculiarities of the services worked by the several Regions, he stated, necessitated continuance of the links between the Regions and the firms which built ships for those particular services. He hoped that a third ferry, to replace the *Essex Ferry*, would in due course be built at Clydebank. Dr. J. M. McNeill, Managing Director of John Brown & Co. Ltd., said in reply that the new ferry was the twelfth vessel built by his firm for the Eastern Region and its predecessor the L.N.E.R., and mentioned the 25 years' co-operation between his firm and Captain R. Davis, Marine Superintendent of the Eastern Region, in the design of vessels for the Harwich services.

Others present included:—

Monsieur F. Delory; the Hon. C. M. McLaren, Vice-Chairman, Sir Allan Grant, Managing Director, and Sir Arthur Matthews and Sir Donald Skiffington, Directors, John Brown & Co. Ltd.; Mr. C. K. Bird, Chief Regional Officer, Eastern Region; Messrs. O. H. Corble, Chief Officer (Marine) and J. L. Harrington, Chief Officer (Administration), Railway Executive; Mr. L. H. K. Neil, Continental Traffic Manager, Eastern and North Eastern Regions; Captain R. Davis; Messrs. M. B. Thomas, Public Relations & Publicity Officer, and W. S. Dawson, Marine Superintendent Engineer, Eastern Region; and Mr. H. C. Talbot, General Agent for Belgium, British Railways.

£300,000 Improvement Scheme for Euston

Plans for resignalling, improved track layout, and longer platforms to be completed in two years

On March 8, the London Midland Region of British Railways announced that work is to begin soon on a scheme of improvement at Euston Station, estimated to cost £300,000, the completion of which in two years is expected to have far reaching benefits on train operation into and out of this terminus.

A new power operated signal box, with colour light signalling and complete track circuiting, will replace Nos. 1, 2, and 3 signal boxes. The main-line working controlled by No. 4 signal box will be transferred to the new power operated box, and the existing manual block working between Euston No. 2 and Camden No. 1 boxes is to be abolished in favour of train describers. Position light dwarf signals will control all shunting movements. The new signalling is designed to link up with the existing continuous colour light signalling on the main lines between Euston and Sudbury Junction.

After consideration of the difficulties of the restricted space outside Euston it has been decided that the most suitable site for the proposed new power operated box is just north of Hampstead Road bridge No. 5. Alterations to the connections to the down empty carriage line are necessary to give a clear space of sufficient size, and these in turn will call for alterations to the signalling at No. 4 box so as to maintain the existing standing room on the down empty carriage line, a factor of some importance in the clearing of empty stock trains from the station.

In selecting the site for the new power operated signal box clear of the immediate station yard area, regard has been paid to the desirability of avoiding the erection of any structure in a position which might form an obstruction to future station developments. To feed the new power signalling, it is proposed to obtain a power supply from a London Electricity Board sub-station, and to provide a standby diesel-electric generating set, the equipment for which is already available.

New Track Layout

The existing permanent way contains 18 diamond crossings, eleven of which are accompanied by inside or outside slip roads, two of them being double slips. Curvature is in many places sharper than 8 chains radius. The new layout will contain only five diamond crossings, two of which are to be single-slip roads, while the curvature will seldom be sharper than 10 chains radius. It will also be possible to provide "C" or "D" type switches to nearly all the turnouts in place of the "B" switches.

On the arrival side at Euston Station the platforms are of insufficient length to accommodate long trains. A following arriving train often has to be held outside the station although the platform to which it is booked is unoccupied. This difficulty can at times be overcome by detaching vehicles at the rear of trains already standing in the platforms, but the shunting movements involved take time and occupy other lines, and platforms.

No major improvement hitherto was possible, as the piers of overbridge No. 3 at the north end of the station prevented respacing of the tracks to permit the platforms to be lengthened. Powers have been obtained to abandon this bridge, which, together with the piers, will be removed during 1951, the work being spread over several months, using 12-hour possessions of the lines to suit traffic requirements. The removal of the bridge will enable the layout to be simplified and platforms lengthened as shown in the table.

Platform No.	Additional length of platform	Additional available length of platform line clear of connections	Platform accommodation for 60 ft. 8 in. coaches and engine of 75 ft.	
	Ft.	Ft.	Present	Proposed
1	190	300	15	19
2	90	220	15½	17½
3	120	200	13½	15½
6	85	110	13	14½
7	85	130	6	7
15	90	90	14½	16

The existing platform and station yard lighting system has been in use for many years and the wiring cannot take any extra load. It is therefore necessary to provide new installations with centralised controls in No. 6 platform electricity substation, where the remainder of the controls are located for the proposed platform extensions and for the yard. In the last named improved facilities in accordance with Railway Executive standards will be provided, thus ensuring an adequate level of lighting.

Some interference with train operation will be inevitable while the work is being done, and particularly during the later stage, when some of the centre platforms will be out of use for two or three weeks and the working into and out of certain sidings will also be affected. It is expected that this will take place immediately after the summer of 1952, when some curtailment in the services will be necessary.

Joint Statement to Railway Staff

Manifesto by Railway Executive and union leaders

Provision was made in the agreement signed on February 23 by the Railway Executive and the three railway unions for a joint manifesto to be issued to British Railways staff informing them of the settlement and asking for their fullest support in the tasks which lie ahead. A joint statement signed by the Chairman and Member for Staff & Establishment of the Railway Executive and by the President and General Secretary of the N.U.R., A.S.L.E.F. and R.C.A. (now T.S.S.A.) respectively has accordingly been issued to every member of British Railways staff affected by the settlement, to explain the agreements made on February 23. Reproduced in the document is the text of the agreement by the unions to afford the Railway Executive the fullest co-operation in securing increased economy and efficiency, details of which were given in our March 2 issue.

The joint statement reads as follows:—

A Big Step Forward

Joint Declaration by the Railway Executive and the Trade Unions

"The settlement which has now been reached on the points at issue between the Railway Executive and the trade unions represents a big step forward in railway labour relations. In the first place, it secures for all members of the conciliation and salaried grades covered by agreements with the trade unions, increased rates of pay broadly equal to 7½ per cent. above previous rates. In the second place, there has been established a firm basis of co-operation on which it will be possible to improve the output of the industry.

"These two main points are the subjects of separate agreements, but they are closely related to one another. The effect of the increases in wages and salaries will be to add £12 millions to railway paybill costs—and British Railways have a deficit to the extent of £26 millions in 1949, and £12 millions (estimated) in 1950. Because only a part of the extra £12 millions to be spent on wages and salaries can be recovered from savings effected under nationalisation, this means that in order to find the money passengers and senders of goods by rail will be asked to pay more.

"The more that people have to pay for railway transport, the more critical they will be of the service they get for their money; and the more they are likely to think twice before using the railway at all. In fact, many of our customers will only stay with us if we give them better service than we are doing now. And if their custom is lost, then so much worse will be the financial position of British Railways, and the more difficult it will be, for instance, to carry out the many improvements in staff accommodation and amenities which the Railway Executive has in hand, or under consideration.

"Thus it is up to all British Railways staff—from the top to the bottom—to do their utmost to give the best possible service and so help the national railway system to carry the burden of extra costs. That is where the second agreement comes into the picture. There are many improvements in service, and schemes for reducing working costs, which the Railway Executive would like to restore, or are now able to plan as a result of nationalisation, and which if carried out would greatly help the efficiency of the railways.

Co-operation of Staff

"The smooth and effective introduction of such proposals depends to a large extent on the co-operation of the trade unions and the staff at all levels. An undertaking has been given by the Railway Executive that there will be the fullest consultation with the trade unions in regard to the introduction of all major schemes which may affect the staff position. The trade unions have pledged *their* help in the form of the important agreement which appears in full in this pamphlet. All members of the staff in their turn are urged to bear in mind that—subject to proper safeguards—the opportunities of reorganisation and technical progress must be given full scope if the railways are to continue to progress. *It is in fact vital to the interests of railway*

XUM

staff generally that the undertakings given by the Executive, and the co-operation which the trade unions have promised, should be matched on the part of every employee of British Railways by a realistic long-term outlook and by loyal observance of agreements made on their behalf.

"The agreements, *which we now ask you to study most carefully, and to carry out loyally and thoroughly,* were made after nearly a week of intensive negotiations. In the national interest, they required concessions by both sides. Despite the wide differences which had to be reconciled, however, the negotiations were conducted throughout in a reasonable and sensible spirit which augurs well for the future relationships of British Railways and their staff. By the display of a similar spirit at all levels throughout the industry; by the realisation that effective machinery exists and must be used in the solution of all staff problems; and by giving the public good service with courtesy and goodwill—so can the efficiency of British Railways be increased, their financial position improved, and full opportunity given to railways and railwaymen alike to enhance the proud and responsible position which they occupy in our national life, and have occupied for a century and a quarter.

"Now is the time for a new start, and a new spirit of enterprise, comradeship and hard work—all qualities for which the British people are renowned. There will be difficulties, mistakes, and so on—we are all human. But with goodwill and unselfishness, *it can be done.* So, in the firm belief that: (1) the management can believe in the staff to pull their weight, and do their best, and (2) the staff can have confidence and trust in the management to 'play the game,'

"We, representing the Railway Executive and the trade unions, have signed our names to this declaration.

"*Let us go forward together to better times.*"

Signed on behalf of:—

Railway Executive
JOHN ELLIOT, *Chairman*
W. P. ALLEN, *Member National Union of Railwaymen*
H. W. FRANKLIN, *President*
J. B. FIGGINS, *General Secretary Associated Society of Locomotive Engineers and Firemen*
F. KELLAND, *President*
J. G. BATY, *General Secretary Railway Clerks' Association*
PERCY MORRIS, *President*
G. B. THORNEYCROFT, *General Secretary*

Staff & Labour Matters

London Transport Wage Increase

Settlement was reached on March 9 between the London Transport Executive and the N.U.R., A.S.L.E.F., and the Transport Salaried Staffs' Association (late R.C.A.) in the wage claim of the rail staff of London Transport. The following statement was issued when agreement was reached:—

"The settlement provides for an increase of roundly 7½ per cent. on existing standard rates of pay for salaried and railway conciliation staff, with effect from January 1, 1951. The unions also signed an agreement acknowledging the imperative need of the fullest co-operation with the L.T.E. in the elimination of waste of manpower, in increasing efficiency, and in improving productivity within the London Transport.

"To this end they undertook to examine forthwith in that spirit any proposals which the Executive put forward and agreed that action towards this need should be taken without delay. A special joint committee of the Executive and the unions will therefore be set up immediately for this purpose."

The settlement is similar to that for the main line railway staffs, and is in response to the claim of the N.U.R. for a 10 per cent. pay increase, 15 per cent. from the A.S.L.E.F., and 7½ per cent. from the T.S.S.A.

Weekly one-day token strikes threatened by two branches of the N.U.R.—Shepherd's Bush and Camden No. 3—had been deferred pending the outcome of negotiations.

Statutory Order 1305

Writing in *The Railway Review* on the recent railway wage settlement, Mr. J. B. Figgins, Secretary of N.U.R., contends that the N.U.R. can rightly claim to have struck a blow which means the death-knell of Order 1305.

This Order, the Conditions of Employment & National Arbitration Order, 1940, was designed to prevent work being interrupted by trade disputes during the war years, and it has never been repealed. It provides that an employer shall not declare or take part in a lock-out and a worker shall not take part in a strike in connection with any trade dispute unless the dispute has been reported to the Minister, and 21 days have elapsed since the date of the report and the Minister has not referred the matter for settlement under the machinery of the industry or as an alternative to the National Arbitration Tribunal, which was constituted under the order. Any agreement, decision, or award made of the N.A.T. is binding on employers and workers. By special agreement between the railway unions and former main-line railways it was decided in 1940 that decisions of the Railway Staff National Tribunal should be binding upon the parties, during the operation of Order 1305.

In February last the T.U.C. General Council decided to ask for revocation of the Order, and substituted for it a new Order designed to encourage resort to arbitration but without prohibition of strikes. This was later discussed by the Ministry of Labour Joint Consultative Council under the chairmanship of Mr. Bevan and consideration was adjourned until April 4.

Questions in Parliament

Railway Charges

Captain Peter Thorneycroft (Monmouth—C.) on March 5 asked the Minister of Transport for a statement on his present intentions with regard to railway charges.

Mr. J. A. Boyd-Carpenter (Kingston-upon-Thames—C.) also asked the Minister of Transport what increases he proposed to authorise in railway passenger fares and freight charges; and whether he would give an assurance that none of these increases should come into effect until the House had had an opportunity to consider them.

Mr. J. Grimond (Orkney & Shetland—Lib.) asked the Minister of Transport whether he would bear in mind the hardship that might be caused to remote areas in the Highlands and Islands; and whether he would introduce some form of rebate on long hauls.

Mr. Alfred Barnes: I am not yet in a position to make a statement.

Captain Thorneycroft: When the Government intervened in the recent wage negotiations the Minister must have advised his colleagues at that time about the effect that that settlement would probably have on freights and fares?

Mr. Barnes: I should require a submission from the B.T.C.; that has now been received and will be given full consideration.

Mr. Boyd-Carpenter: In view both of the importance to the national economy, and of the fact that the situation has been aggravated by the direct intervention of the Minister, cannot he give an assurance that no steps will be taken until the House is consulted?

Mr. Barnes: It is not for me to determine the business of the House. Mr. Boyd-Carpenter knows the procedure.

Alexandra Palace Branch Electrification

Mr. L. D. Gammans (Hornsey—C.) on March 5 asked the Minister of Transport why he refused to approve the capital expenditure necessary to complete the electrification of the Finsbury Park to Alexandra Palace line, and what was the amount involved.

Mr. Alfred Barnes. I have not withheld approval for this scheme, the estimated cost of which is £4 million. While the B.T.C. total capital investment is limited, within that limitation the Commission apportions capital investment for its Executives in accordance with its views on priorities.

Mr. Gammans. As it would not cost very much, relatively, to finish this job, in progress since before the war, would the Minister consider giving necessary authorisation?

Mr. Barnes. The B.T.C. must have the responsibility for allocating what capital it has for investment.

Nigerian Railway Locomotives

Mr. Ronald Russell (South Wembley—C.) on February 21 asked the Secretary of State for the Colonies if he was aware that, owing to the breakdown of recently imported locomotives on the Nigerian Railways, stocks of groundnuts were again accumulating.

Mr. George Griffiths: Yes. Action is being taken in consultation with the manufacturers to restore the locomotives to service with the least possible delay. Any substantial accumulation of stocks should only be temporary as the crop this year is small.

Mr. A. T. Lennox-Boyd (Mid-Bedfordshire—C.): As they will no longer be needed on the groundnut scheme in East Africa would it be possible to transfer the locomotives to West Africa to help private enterprise?

Mr. Griffiths: I could not answer that without previous notice.

Mr. C. J. Alport (Colchester—C.): Can the Minister say whether the breakdown of the locomotives was due to the poor quality of Nigerian coal, much of which we are now to import into this country?

Mr. W. Fletcher (Bury & Radcliffe—C.): Does not the Minister remember the great loss in accumulated stocks two years ago owing to attack by weevil? How does

XUM

he explain this repetition in the same circumstances due to lack of railway materials?

Mr. Griffiths: I appreciate that, and we are giving this matter earnest consideration.

Contracts & Tenders

It was recently stated in the Board of Trade, Commercial Relations & Exports Department, Special Register Information Service, that the Commercial Counsellor at the British Embassy, Tehran, has reported a call for tenders issued by the Iranian State Railways for the supply of track material as follows:—

Ordinary metal sleepers, 180,000; metal transverse joint-sleepers, 20,000; fish-plates with 6 soles, 20,000; fish-bolts (with nuts), 60,000; spring plates, 60,000; clips, 800,000; lugs nos. I and II, 800,000 (600,000 I and 200,000 II); fixing bolts (with nuts), 800,000.

Tenders should reach the Manager, Works Department ("Karpardazi"), Iranian State Railways, Tehran Station, Tehran, Persia, by April 7, 1951. Tenderers should enclose with their offers a bank guarantee for Rials 500,000 valid for three months. They should also clearly state all their terms and conditions for delivery. A copy of the tender documents (in French), together with the drawings, is available for inspection by representatives of interested United Kingdom manufacturers at the Commercial Relations & Exports Department (Industries Branch), Board of Trade, Thames House North, Millbank, London, S.W.1. Reference C.R.E. (IB) 54912/51 should be quoted.

The Crown Agents for the Colonies have recently placed the following order for the East African Railways & Harbours, Kenya Section:—

Metropolitan-Cammell Carriage & Wagon Co. Ltd.; 6 bogie high-side wagons; 6 bogie low-side wagons.

The New South Wales Government Railways have recently placed a contract with the British Thomson-Houston Co. Ltd. for ten diesel-electric shunting and transfer locomotives, each of 1,000 b.h.p., with an all-up weight of about 70 tons. The locomotives are designed for a maximum speed of 57 m.p.h. There are two diesel engines per locomotive, and each is a Paxman 12-RPH Series 2, rated 500 h.p. The main sub-contractor is the Metropolitan-Cammell Carriage & Wagon Co. Ltd., which is supplying the mechanical parts.

Orders have recently been received by Sulzer Bros. (London) Ltd. and Crompton Parkinson Limited for oil engine and electric transmission equipment for 350 b.h.p. diesel-electric shunting locomotives for the Spanish National Railways. The 20 complete locomotives are being supplied by La Maquinista Terrestre y Maritima, of Barcelona, and the Soc. Esp. Babcock y Wilcox, of Bilbao, to general designs prepared by Sulzer Bros. Limited of Winterthur. The mechanical portions are to be built, and the locomotives erected, at the two Spanish works. Of the 20 oil engines, 16 are to be supplied by Sulzer Bros. (London) Ltd., and will be built at Barrow under that company's manufacturing arrangement with Vickers-Armstrongs Limited. The four remaining oil engines are to be built at Barcelona by La Maquinista and at Bilbao by Babcock y Wilcox, the Sulzer licensees for Spain. The complete electrical equipment for all 20 locomotives is to be built at the Chelmsford works of Crompton Parkinson Limited.

Notes and News

New Zealand Government Railways.—Tenders are invited for the supply and delivery of 35 diesel-mechanical shunting locomotives in the range of 200-350 h.p. See Official Notices on page 311.

Assistant to Works Management Required.—Applications are invited for the post of assistant to the works management required by a wagon building and engineering company in South Wales. See Official Notices on page 311.

London Transport Executive.—Applications are invited for a post of temporary general technical assistant in the drawing office of the civil engineer (maintenance) of the London Transport Executive. See Official Notices on page 311.

Draughtsman (Civil Engineering) Required.—Applications are invited for the post of draughtsman (civil engineering) required by the Nigerian Government Railway for one tour of 18 to 24 months in the first instance. See Official Notices on page 311.

Robert Stephenson & Hawthorns Limited.—The directors of Robert Stephenson & Hawthorns Limited recommend an ordinary dividend of 10 per cent. for 1950. This compares with 5 per cent., plus a 2 per cent. bonus, for 1949. Profits were £124,219, against £82,316, subject to tax of £67,000, against £41,500.

Institution of Locomotive Engineers.—The fortieth annual general meeting of the Institution of Locomotive Engineers will be held at the Institution of Mechanical Engineers, Storey's Gate, London, S.W.1, at 5.30 p.m. on March 21. During the meeting Mr. E. S. Cox, Member of Council. and Executive Officer (Design), Railway Executive, will read a paper on "British Standard Locomotives."

L.M.R. Easter Holiday Plans.—Normal services will be restored for Easter and 884 additional long-distance trains will be run in the London Midland Region. The normal services will be put into operation on March 19-28, and the programme of extra trains begins on March 20. Peak days will be March 22, 23, and 24 for outward journeys with 190, 102, and 100 extra trains respectively and for the return journeys March 26 (211 trains) and 27 (164 trains).

Coal, Iron, and Steel Carrying by British Railways.—During the week ended March 12 British Railways moved 327,686 wagons of coal; 42,122 of these wagons were moved during the weekend (March 10 and 11). During the previous week 18,725 tons of pig-iron and 188,308 tons of steel were conveyed.

Easter Train Services in the North Eastern Region.—Besides restoring on March 19-28 212 main-line trains and connecting services temporarily discontinued to save coal, the North Eastern Region will put on 298 relief trains at Easter, and 164 excursion trains to seaside and inland destinations. Seats will be reservable on 37 and restaurant facilities will be included in 28 relief trains.

Competition for Factory Cleanliness.—Every month a money prize, free of income tax, is awarded to the employee of the Self-Changing Gear Co. Ltd., Coventry, whose machine or place of work is judged to be the cleanest. Marking takes place at several unspecified times during the month so that the final result does not depend on a snap decision. Visitors are sometimes invited to go the rounds and act as judges.

Western Region Festival of Music & Drama.—The Western Region Staff Association Festival of Music & Drama is being held at Reading this week from March 12 to 17. This annual festival, which is being held daily at the Town Hall, has grown during the past 21 years, from a modest competition of about 100 entries, to its present dimensions, with over 3,000 competitors in 121 classes. The competitions include every variety of music and drama from vocal and instrumental solos to mixed choirs and brass bands, and from impromptu speeches to the performance of one-act plays. The Mayor of Reading extended a civic welcome to the Festival at the opening of the evening session on March 12, and on March 17 the Cardiff Division G.W.R.

New Ticket Hall at Liverpool Street

View of new interchange ticket hall from Metropolitan line, showing exit to street and subway to Broad Street Station in centre back ground

XUM

Orchestra, 1950 winners of the premium class award at the National Eisteddfod of Wales, will make an appearance. The final session of the Festival will start at 6.30 p.m. on March 17, when the chair will be taken by Mr. K. W. C. Grand, Chief Regional Officer, Western Region, who is President of the Association.

Euston-Heysham Boat Train Restored.—The London Midland Region of British Railways has announced that the Euston-Heysham boat train in each direction, which was cut recently to three days a week to save coal, is to run daily again as from March 19.

Record February Steel Output.—Steel production in February was at an annual rate of 16,952,000 tons as compared with 16,898,000 tons a year ago. This is the highest rate of production ever achieved in February. Pig-iron output was at the rate of 9,687,000 tons a year as compared with 9,588,000 tons in February last year.

	Weekly average	Annual rate	Weekly average	Annual rate
January ...	187,400	9,742,000	183,100	9,520,000
February...	184,400	9,588,000	186,300	9,687,000

STEEL INGOTS AND CASTINGS
(Tons)

	1950		1951	
	Weekly average	Annual rate	Weekly average	Annual rate
January ...	305,300	15,873,000	305,900	15,907,000
February...	325,000	16,898,000	326,000	16,952,000

Easter Holiday Arrangements: Eastern Region.—Nearly 400 additional trains will run in the Eastern Region during the period of the Easter holiday, March 21-28, including 125 on Maundy Thursday, March 22. This total includes many additional services from London serving East Anglia, the West Riding, the North East, and Scotland (the last including sleeping-car trains); similarly many extra trains will run to London, and some cross-country services will be duplicated. The "Queen of Scots," "Yorkshire Pullman" and "Tees-Tyne Pullman" from Kings Cross will not run on Good Friday and Easter Saturday and Monday; the "Harrogate Sunday Pullman" will run on Good Friday (when a modified Sunday service will operate) but not on Easter Sunday.

Buenos Aires Transport Tenders.—The trustees of the Buenos Aires Transport Corporation have published a call for tenders for the purchase of the "physical assets" of the Corporation. Offers will be considered on April 16. The Anglo-Argentine Tramways Co. Ltd. is the largest foreign shareholder in the Corporation, with interests totalling approximately 200,000,000 pesos. The Corporation, created by an Act of 1939, has been operated at a heavy loss, which has been covered by the State.

Grand National Excursions on London Midland Region.—Grand National plans of the London Midland Region of British Railways include the running of 20 special trains at cheap fares. Services will be from Euston, Watford, St. Albans, Birmingham, Stoke, Manchester, Oldham, Blackpool, Carlisle, Derby, Leicester, Nottingham, and many other stations. Day excursion fares will apply, except in the case of Euston, which will provide three first class only expresses at an inclusive rail fare and meals charge, while a fourth train from Euston will include a dining car providing optional meals. Dining cars will also be attached to the trains from Watford and St. Albans and Leicester.

Institution of Locomotive Engineers Summer Meeting.—The summer meeting of the Institution of Locomotive Engineers will be held on May 22, 23, and 24, when a series of visits will be made, including an inspection of British Railways standard locomotives and coaching stock at Marylebone Station on May 23, followed by a dinner at the Trocadero Restaurant the same evening. A visit will also be made, on May 24, to the Southern Region carriage works at Eastleigh. Southampton also will be visited on May 24 to see the departure of R.M.S. *Queen Mary*. A reception will be held at the Institution of Electrical Engineers, Savoy Place, London, W.C.2, on May 22, when the Sir Seymour Biscoe Tritton lecture will be given by Mr. W. A. Newman, Chief of the Motive Power & Rolling Stock and Research Departments, Canadian Pacific Railway.

G. D. Peters & Co. Ltd.—The directors of G. D. Peters & Co. Ltd., Slough, recommend a final dividend on the ordinary shares of 7½ per cent. and a cash bonus of 2½ per cent. This makes 17½ per cent. for 1950 and is the same as for the previous year. The net profit, £76,671, compares with £103,659, after charging £84,000 for taxation as against £125,000.

Scottish Region Branch to be Closed.—On and after March 26, the Dingwall-Strathpeffer branch line of the Scottish Region will be completely closed—the passenger train services were withdrawn some years ago—and a road motor service for parcels and miscellaneous traffic and all freight train traffic will be operated between Dingwall and Strathpeffer. A collection and delivery service will be maintained in Strathpeffer as at present and an agency has been established for the collection of parcels and sundry traffic consigned "Station Only."

Permanent Way Institution: Irish Section.—There was a large attendance at a meeting of the Irish Section of the Permanent Way Institution in Belfast on March 2. Mr. N. C. Cain, Vice-President for Ireland, was in the chair, other officers present including Mr. T. A. Carson, Hon. Secretary, and Mr. H. S. Cochrane. A paper entitled "Some Aspects of Railway Operating" was read by Mr. J. C. Bailie, Operating Superintendent, G.N.R.(I.), after which a film was shown dealing with the loading up of concrete sleepers at the Warrenpoint premises of Dow-Mac (Products) Limited, and unloading at the re-sleepering site.

Southern Region Easter Travel Arrangements.—For the Easter Holidays the Southern Region is restoring principal main-line services recently withdrawn and

"Britannia" Class 4-6-2 Locomotive named "Lord Hurcomb"

Left: Lord Hurcomb, Chairman of the British Transport Commission, on the footplate of the "Britannia" class Pacific locomotive "Lord Hurcomb" after the naming ceremony at Liverpool Street (see our March 9 issue). Right: Lord Hurcomb unveiling the nameplate; left to right are Mr. C. K. Bird, Chief Regional Officer, Eastern Region; Mr. R. A. Riddles, Member, Railway Executive; Lord Hurcomb; Mr. John Elliot, Chairman, Railway Executive

OFFICIAL NOTICES

Crown Agents for the Colonies

DRAUGHTSMAN (CIVIL ENGINEERING) required by the Nigerian Government Railway for one tour of 18 to 24 months in the first instance. Salary, including expatriation pay, £1,045 a year, plus temporary allowance of £79 a year; outfit allowance £60. Free passages for officer and wife and assistance towards the cost of children's passages. Liberal leave on full salary. Gratuity on satisfactory completion of service. Candidates must have had at least five years' experience in the drawing office of a Railway Civil Engineering Department (or Consulting Engineers or Contractors with practice in railway work). Knowledge of design and construction details of civil engineering structures and railway track work is required, including ability to take off quantities, prepare estimates, and draft general specifications. Apply at once by letter, stating age, full names in block letters, and full particulars of qualifications and experience, and mentioning this paper, to the CROWN AGENTS FOR THE COLONIES, 4, Millbank, London, S.W.1, quoting M.17417.A on both letter and envelope. The Crown Agents cannot undertake to acknowledge all applications and will communicate only with applicants selected for further consideration.

MONARCH Centre Lathe, 12½-in. centres, to swing 16 ft. between. Twin saddles each with taper turning. Motor-driven all-geared head.—Box 17, *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

WE buy used or unserviceable Steel Files at good prices, in lots of 2 cwts. or more. THOS. W. WARD, LIMITED, R.S. Department, Albion Works, Sheffield.

SPRING SHOP FOREMAN, with experience in the manufacture of laminated, helical and volute railway springs, required by Railway Carriage and Wagon Works in India. Four years' contract, salary according to qualifications, passages for family, quarters, provident fund and free medical attention. Apply, in writing, giving full details of experience, to Box No. 692, c/o W. Abbott, Limited, 32, Eastcheap, London, E.C.3.

New Zealand Government Railways

TENDERS are invited for the supply and delivery f.o.b. of 35 Diesel Mechanical Shunting Locomotives in the range of 200-350 h.p. Forms of tender and specifications may be obtained from the High Commissioner for New Zealand on payment of a deposit of five guineas, which deposit will be refunded provided a *bona fide* tender be lodged and not withdrawn. Extra copies may be obtained at one guinea each, which sum will not be returnable. Each tender in sealed envelope marked "Tender for Diesel Mechanical Locomotives" must reach the undersigned not later than 12 noon on March 26, 1951.—THE HIGH COMMISSIONER FOR NEW ZEALAND, 415, Strand, London, W.C.2.

ASSISTANT to the Works Management required by Wagon Building and Engineering Company in South Wales. Applicants should be under 40 years of age and have a theoretical and practical knowledge of the trade. Apply giving details of experience, etc., together with salary required, to Box 22, *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

LONDON TRANSPORT EXECUTIVE.—Applications are invited for a post of temporary General Technical Assistant in the drawing office of the Civil Engineer (Maintenance) for the design of steel and reinforced concrete structures. Applicants should have an Engineering Degree or Higher National Certificate or be well advanced in a course of study for these qualifications. Previous drawing office experience would be an advantage. Commencing salary will be according to age and experience up to £420 per annum with additional payments for certain recognised qualifications. The appointment is subject to a medical examination. Canvassing, either directly or indirectly, will disqualify. Applications giving full details of age, training, experience, and present salary should be sent within fourteen days of the appearance of this advertisement to the STAFF OFFICER (F/EV. 150), LONDON TRANSPORT EXECUTIVE 55, Broadway, London, S.W.1. For acknowledgment enclose addressed envelope.

TECHNICAL ASSISTANT (TEMPORARY) required for Railway Civil Engineer's Drawing Office in London. Applicants should be experienced in design of reinforced concrete and steel structures; foundations; preparation of contract documents and able to undertake surveys and preparation of detailed working drawings, calculations, estimates and specifications. Apply in writing, giving particulars of qualifications, experience and salary required, etc., to CIVIL ENGINEER, BRITISH RAILWAYS, Eastern Region, Kings Cross Station, N.1.

INTERNATIONAL RAILWAY ASSOCIATIONS. Notes on the work of the various associations concerned with International traffic, principally on the European Continent. 2*s*. By post 2*s*. 2*d*. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

RAILWAY SIGNALLING AND COMMUNICATIONS INSTALLATION AND MAINTENANCE. A practical guide, especially intended to help Signal Inspectors, Installers, Fitters, Linesmen, Draughtsmen, and all concerned with installing and maintaining Signal, Telegraph, and Telephone Equipment. 416 pp. Many illustrations. Cloth. 8*s*. By post 8*s*. 6*d*. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

TRANSPORT ADMINISTRATION IN TROPICAL DEPENDENCIES. By George V. O. Bulkeley, C.B.E., M.I.Mech.E. With chapters on Finance, Accounting and Statistical Method. In collaboration with Ernest J. Smith, F.C.I.S., formerly Chief Accountant, Nigerian Government Railway. 190 pages Medium 8vo. Full cloth. Price 20*s*. By post 20*s*. 6*d*. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

THE "PAGET" LOCOMOTIVE. Hitherto unpublished details of Sir Cecil Paget's heroic experiments. Eight single-acting cylinders with rotary valves. An application of the principles of the Willans central-valve engine to the steam locomotive. By James Clayton, M.B.E., M.I.Mech.E. Reprinted from *The Railway Gazette*, November 2, 1945. Price 2*s*. Post free 2*s*. 3*d*. *The Railway Gazette*, 33, Tothill Street, London, S.W.1.

---

inter-Regional through services between the South Coast and the Midlands and North. In addition, some 350 extra trains will be run between London and coastal resorts, of which 120 will be on Thursday, March 22. A large programme of excursions has been arranged between London, suburban stations, the seaside and country. A special night service to Paris *via* Newhaven and Dieppe will leave Victoria on March 21 and 22, with return from Paris on Easter Monday. Another special night service to Belgium *via* Dover and Ostend will also be run for Easter, leaving Victoria on Thursday, March 22.

Canadian Wagon Shortage.—The Canadian Transport Minister has said that all Canadian railway wagons on American lines must in future be returned empty to Canada. Newsprint mills, hard hit by the wagon shortage, say they must close unless transport is found to move paper from their packed warehouses. The Minister explained that the usual shortage of Canadian wagons at this time of year had been aggravated by the recent American shunters' strike.

Coloured Pictures for L.M.R. Passenger Compartments.—Coloured pictures are gradually to replace the scenic photographs now a feature of compartments in L.M.R. trains and in L.M.S.R. trains before them. The first coach so equipped was put into service on February 23. For the time being these pictures will be provided in non-corridor coaches in both steam and electric trains. The cost of producing the pictures is less than half that of the photographs they replace. Three series of coloured pictures have been prepared, depicting: (*a*) travel over the period 1845-1920 by the railways which now form the L.M.R.; (*b*) notable L.M.R. architectural features, including viaducts and tunnel entrances; and (*c*) scenery in lesser-known places in the Region. The first-named series, by C. Hamilton Ellis, shows the liveries of engines and coaching stock of the constituent railways (and the dress of lineside spectators) as in the year concerned, such as the North London train at Richmond in 1870 and the Furness train at Ulverston in 1920.

Further South London Tram Conversion.—On the night of April 7-8, London Transport tram services 16 and 18, from the Embankment to Purley, and 42, from Croydon to Thornton Heath, will be replaced by new bus services, numbered 109 and 190. The route mileage of tracks abandoned is 11, bringing the total abandoned since the conversion scheme began to 31; seven-one route-miles will remain to be abandoned.

Overseas Visitors to Brush-Aboe Works.—One of the largest parties of overseas journalists to visit British industry recently completed a two-day tour of factories of the Brush-Aboe group. The party, consisting of some 60 journalists from 26 countries, visited Henry Meadows Limited, Wolverhampton, the Brush Electrical Engineering Co. Ltd., Loughborough; and Mirrlees, Bickerton & Day Limited, Stockport. The tour was intended to emphasise the important part the group is playing in the export drive. Sir Ronald Matthews, Chairman of the Brush-Aboe companies, was in the chair at a dinner held at Buxton on the first evening of the visit.

British Engineers Help American Industry.—Reports from Anglo-American Productivity Teams returning from the U.S.A. confirm that a great deal of help is derived from a study of American engineering methods. One case in which British engineers have been able to assist Americans lies behind an order for 15-in. tubes received from the U.S.A. by Tufnol Limited. When a team representing the British drop forging industry visited America it was noticed that the striking pegs in the tups on Chambersburg hammers were lignum vitæ or teak. It was found that a peg usually struck the tripping mechanism about 8,000 to 9,000 times a day, and that the average life of each peg was about four weeks. Members of the British team were able to point out, however, that in most parts of Britain wood pegs were considered obsolete for this service, because Tufnol would last about twelve months and normally withstand about 2½ million blows before requiring replacement.

Liverpool Overhead Traffics.—During the first three weeks of 1951 there were successive declines in traffics of the Liverpool Overhead Railway. The greatest setback was in the week ended January 7, when receipts at £2,316 were £535 below those for the previous year, and at January 21 aggregate traffics were down by £847 at £7,303. During the week ended January 28, however, there was a £122 improvement to £2,623, and total receipts for the four weeks amounted to £9,926, as compared with £10,651 for 1950.

Ericsson Telephones Limited.—The trading profit for 1950 of Ericsson Telephones Limited amounted to £1,188,223, as compared with £1,051,071 for the previous year. After allowing for taxes of £655,609 (£564,153) there remained a net profit of £532,614, as against £486,918. A final ordinary dividend of 12 per cent., plus a bonus of 5 per cent., makes a total distribution of 22 per cent., tax free, against 20 per cent. for the previous twelve months, and £213,551, against £175,992, goes forward to next year.

Station for Hull Football Ground.—Transport facilities to the Hull City football ground have been improved by the construction of a station at Boothferry Park and by the running of a special match service. On January 6, when the station was opened for the first time, 5,000 passengers were carried in each direction in six special trains at a fare of 6d. for the return journey. In the construction of the platform, which is 10 ft. wide and 600 ft. long, precast 3-in. reinforced concrete slabs 10 ft. long and 1 ft. wide were used to form the decking, these being supported

XUM

by three longitudinal concrete block walls with diaphragm walls at 15-ft. centres. To enable the concrete to set during the abnormally cold weather experienced during the construction of the platform a special anti-freeze mixture was used.

Effect of Steel Shortage: Dismissal of Wagon Works Staff.—It is reported from Sheffield that because of steel shortage, Craven's Railway Carriage & Wagon Co., Ltd., of Darnall, has dismissed 125 of its 1,200 workers. The Managing Director, Mr. A. E. Cook, said that his firm's representatives had secured export orders in face of keen competition and the order book was well filled, with others still coming in. Although they were on export orders they got no priority, he added. Unless the situation improved they might have to lay off even more men.

Forthcoming Meetings

March 16 (*Fri.*).—Institute of Transport. Annual Dinner at the Connaught Rooms, Great Queen Street, London, W.C.2, at 7 for 7.30 p.m.

March 16 (*Fri.*).—Carlisle & District Transport Club, at the County Hotel, Carlisle, at 7.30 p.m. "Personal Retrospect, 1938-50," by Mr. F. Smith, Transport Executive, Quaker Oats Limited.

March 17 (*Sat.*).—Permanent Way Institution, Manchester & Liverpool Section, in the City of Liverpool Technical College, Byrom Street, Liverpool, at 2.30 p.m. "Railway Track from the Manufacturer's Point of View," by Mr. D. V. Adams.

March 17 (*Sat.*).—Railway Students' Association, London School of Economics and Political Science. Visit to new signalling installation between Bricklayer's Arms Junction and Norwood Junction, Southern Region. Party will assemble at New Cross Gate Station booking hall at 2.15 p.m.

March 19 (*Mon.*).—Institute of Transport, at the Jarvis Hall (R.I.B.A.), 66, Portland Place, London, W.1, at 5.45 p.m. "Management and the Size of the Operating Unit," by Mr. A. F. R. Carling, General Manager, Southdown Motor Services Limited.

March 19 (*Mon.*).—Engineers' Guild, at the Grand Hotel, Piccadilly, Manchester, 1, at 6.30 p.m. "The Aims & Achievements of the Engineers' Guild"; Speaker, Mr. Robert Chalmers, President; Chairman, Brigadier C. C. Parkman, Chairman of the North Western Branch.

March 21 (*Wed.*).—Institution of Locomotive Engineers, at the Institution of Mechanical Engineers, Storey's Gate, London, S.W.1, at 5.30 p.m. Fortieth Annual General Meeting. "British Standard Locomotives," by Mr. E. S. Cox, Member of Council, and Executive Officer (Design), Railway Executive.

March 21 (*Wed.*).—Permanent Way Institution, London Section, at Euston Dining Club, Cardington Street, N.W.1, at 6.30 p.m. Short papers: "Marking of Lengths as a True Indication of Length Maintenance," by Messrs. A. A. Barnard, A. J. Gardner, and H. Perry.

Until March 22 (*Thu.*).—Royal Institute of British Architects, 66, Portland Place, London, W.1. "Architecture of Transport Exhibition," open 10 a.m. to 7 p.m. weekdays, 10 a.m. to 5 p.m. Saturdays.

Railway Stock Market

International developments and Budget fears dominated sentiment on the Stock Exchange, and values have receded, although generally declines on balance were small. Caution by buyers more than selling has been responsible for the moderate setback. Even the commodity sections were unsettled although estimates of pending dividends produced some good features among rubber shares. Tin and rubber prices weakened after the decision to stop stockpiling tin in the U.S.A. Nevertheless it is pointed out that rubber and tin companies should be able to earn good profits even if prices were to fall materially. British Funds have receded with the prevailing trend. Buyers in this section are also tending to hold off until after the Budget. In some quarters it is thought there may be a big Defence loan issue before long. Such an issue would be inflationary and the aim is expected to be to pay for rearmament as much as possible out of taxation.

The quieter trend in industrial shares after their recent gains is understandable, especially as there will be little scope for dividend increases in future if current fears regarding the Budget are confirmed. The extent of the fears that tax changes will hit company profits is indicated by the fact that some well-known companies have advanced their dividend announcements this year.

Business in foreign rails remained on a limited scale, but, generally, prices have been quite well maintained. Leopoldina stocks have been steadier, with the ordinary at 10½, the preference 27½, the 4 per cent. debentures 94½, and the 6½ per cent. debentures 144. Leopoldina Terminal 5 per cent. debentures were 93 and the ordinary units 1s. 3d. Brazil Railway gold bonds kept at 44, Great Western of Brazil shares were 158s., and San Paulo 10s. units changed hands around 15s. 9d.

Antofagasta stocks eased with the ordinary at 7½ and preference at 51. Taltal shares were 19s. 3d. and Nitrate Rails firmed up to 23s. 9d. Bolivar "C" debentures were 57 and La Guaira ordinary stock 83. United of Havana stocks have been easier inclined in the absence of confirmation of moves for a nationalisation takeover. The 1906 debentures have been dealt in around 18. Manila "A" debentures were 61 and the preference shares 6s. 6d. Mexican rails became less active; Mexican Central "A" bonds were 61 and National of Mexico 4½ per cent. non-assented bonds 41½. Canadian Pacifics remained active, but at 55½ failed to hold best levels. The preference stock was 76 and 4 per cent. debenture 100½. White Pass Yukon income debentures were dealt in around 86½.

Road transport shares have been rather easier, but in most cases prices were apparently not adequately tested by dealings. Southdown eased to 98s. 9d., Lancashire Transport were 60s. 6d., and West Riding 46s. 6d. B.E.T. deferred stock changed hands around 510.

Expectations of higher profits arising from rearmament work drew attention to engineering and kindred shares. Nevertheless, whether higher earnings will mean improved dividends for shareholders will of course depend in the main on the extent of tax increases. Guest Keen have been active around 53s. 6d. in response to the compensation valuation for another of its steel subsidiaries. The market remains hopeful of a special return of some kind for Guest Keen shareholders although the directors have already pointed out that large sums will be required for developments planned in Australia as well as at home. Vickers and Cammell Laird again moved higher. Clarke Chapman were better at 62s. and Babcock & Wilcox 68s. 9d. Results of the latter are due in a few weeks, and, though they are expected to show excellent profits, the market is apparently not anticipating a higher dividend at this stage.

Shares of locomotive building and engineering companies were again inclined to improve in the hope that the Argentine trade talks will lead to unfreezing of profits earned in the Argentine. Sentiment was also helped by market suggestions that financial results may contain a number of moderate dividend increases if tax increases are not prohibitive. Hurst Nelson were 63s. 9d., Birmingham Carriage 35s. 4½d., Vulcan Foundry 25s. 9d., North British Locomotive 22s. 7d., and Beyer Peacock 26s. Gloucester Wagon were 17s. 3d. and Wagon Repairs 15s. 6d. Elsewhere, T. W. Ward were 65s. 6d.

Traffic Table of Overseas and Foreign Railways

	Railway	Miles open	Week ended	Traffics for week: Total this year	Traffics for week: Inc. or dec. compared with 1948/49	No. of week	Aggregate traffics to date: Total 1949/50	Aggregate traffics to date: Increase or decrease
South & Central America	Antofagasta ...	811	4.3.51	£ 61,990	+ £ 120	9	£ 755,550	+ £ 164,300
	Costa Rica ...	281	Jan., 1951	c1,155,525	+ c391,617	31	c7,336,254	+ c1,416,484
	Dorada	70	Jan., 1951	41,557	+ 3,460	4	41,557	+ 3,460
	Inter. Ctl. Amer. ...	794	Jan., 1951	$1,315,344	+ $28,708	4	$1,315,344	+ $28,708
	La Guaira	22¼	Sept., 1950	$68,726	— $39,529	39	$725,535	— $241,943
	Nitrate	382	15.8.50	10,816	— 8,656	32	286,336	+ 6,203
	Paraguay Cent. ...	274	2.3.51	₱204,114	+ ₱72,365	35	₱7,127,035	+ ₱2,158,118
	Peru Corp. ...	1,050	Jan., 1951	$8,019,000	+ $1,564,300	31	$54,149,000	+ $13,898,342
	" (Bolivian Section)	66	Jan., 1951	Bs.14,487,000	+ Bs.4,964,000	31	Bs. 84,401,000	+ Bs.12,008,836
	Salvador	100	Jan., 1951	c314,000	— c17,000	31	c1,083,000	+ c22,000
	Taltal	154	Feb., 1951	$1,734,098	+ $427,696	35	$12,596,791	+ $2,153,180
Canada	Canadian National†	23,473	Jan., 1951	15,636,000	+ 3,955,000	4	15,636,000	+ 3,955,000
	Canadian Pacific† ...	17,037	Jan., 1951	10,916,000	+ 2,735,000	4	10,916,000	+ 2,735,000
Various	Barsi Light* ...	167	Dec., 1950	25,137	— 2,955	39	257,055	— 9,900
	Egyptian Delta ...	607	10.10.50	18,245	+ 1,296	28	319,911	— 24,005
	Gold Coast ...	536	Dec., 1950	304,770	+ 18,020	40	2,263,935	+ 83,014
	Mid. of W. Australia	277	Dec., 1950	41,841	+ 6,524	26	235,223	+ 58,067
	Nigeria	1,900	Jan., 1950	502,360	+ 38,978	44	5,017,814	+ 266,573
	South Africa ...	13,347	17.2.51	1,804,559	+ 414,720	45	78,970,060	+ 10,887,234
	Victoria	4,744	Sept., 1950	1,729,344	+ 103,977	13	—	—

* Receipts are calculated at 1s. 6d. to the rupee

† Calculated at $3 to £1